Goliath Gold Project Geochemistry Memo

Goliath Gold Project
Treasury Metals Inc.

Prepared for:

Treasury Metals Inc.

February 2019

GOLIATH GOLD PROJECT GEOCHEMISTRY MEMO

Introduction

On January 10th, 2019, the Treasury Metals and their consultants had a meeting with the Canadian Environmental Assessment Agency (the Agency) and their technical reviewers to discuss the Round 2 information requests related to mine waste. Through these discussions, a total of 17 action items were identified by the Agency and Treasury Metals as requiring additional information. The action items identified in the meeting are as follows:

1. What are supplemental mitigation for ARD onset and seepage / runoff
2. Provide additional details on the minerology of ore and waste rock (to extent available)
3. Tailings operation details to be provided specifically on beaches
4. What is the plan for collection of new data. Add additional description to follow up programs and studies planned related to geochemistry.
5. Provide description of analogue sites including links to ore genetic models.
6. Cross sections indicating sampling locations and sulphur content to be provided.
7. Review and provide additional discussion on potential for selenium leaching.
8. Review and provide additional discussion on potential for thiosalts in tailings effluent.
9. Provide statistics on Carbonate NPR as they relate to humidity cells.
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11. Provide further description of scaling used in water quality modelling.
12. additional water details for water treatments from December meeting Regarding RO – more information about pre-treatment of acid waters
13. Confirm importance of pit high-walls on long-term pit drainage water quality.
14. Commitment in the ongoing management by Treasury Metals to consider covering and perhaps placement of limestone with the WRSA to slow or mitigate ARD onset post closure
15. Clarify the time to flood underground and highlight where that was mentioned
16. include sensitive run in the water addendum to incorporate TSF liner degradation- increase infiltration rate into and thus acid loading from the WRSA post closure
17. Mitigation by pumping post closure to ensure that weather cover is maintained if climate model shows at risk- if commitment is made what are the financial assurances.
18. Talk more about mitigative measures during operations for WRSA, supplemental mitigation

1. What are supplemental mitigation for ARD onset and seepage / runoff

Table 1 provides proposed supplemental mitigation measures for ARD onset and seepage/ runoff collection.

Table 1: Proposed supplemental mitigation for ARD onset and seepage / runoff

Environmental effect	Mitigation	
	Operations	Closure
Onset of ARD in tailings	- Maintain the tails in a saturated state by spigotting the tailings at different locations within the TSF	- incorporate the addition of lime to the tailings in the final years of operations to prolong the onset of ARD, if required - Add a layer of inert fine grained granular material above the tailings
Onset of ARD in WRSA	Cannot be avoided	Cannot be avoided
Onset of ARD in LGO stockpile	Cannot be avoided	Cannot be avoided
Onset of ARD in open pit	Cannot be avoided	Cannot be avoided
Seepage and Run off from TSF	- The TSF will be lined with a HDPE liner which limits the quantity of seepage out of the TSF to 3.1 m^3/d - Seepage and runoff collection ditches will be constructed around the TSF	- The TSF will be lined with an HDPE liner which limits the quantity of seepage out of the TSF to 3.1 m^3/d - Seepage and runoff collection ditches will be constructed around the TSF and will divert the water to the open pit
Seepage and Run off from WRSA	- Seepage and runoff collection ditches will be constructed around the WRSA and collected in a separate collection pond for treatment	- Seepage and runoff collection ditches will be constructed around the WRSA and collected in a separate collection pond for treatment - The WRSA will be capped to limit the waste rock interaction with the atmosphere
Seepage and Run off from LGO stockpile	- The LGO stockpile will be lined	Any LGO remaining in the LGO stockpile following operations will be moved to the open pit where it will be submerged by the pit lake

2. Provide additional details on the minerology of ore and waste rock (to extent available)

Summary descriptions from a 2012 petrographic microscopy report of a range of rock samples representing alteration, veining, a mafic dyke and ore materials are provided in Table 2. All percentage quantities identified in discussions below are modal mineral amounts that represent hand-sample scale. For example, values would expected to be higher than quantitative sulphur contents chemically measured in ARD samples at the meter scale. The information can provide detailed mineralogical associations and relative quantities at a fine scale in the rock samples submitted.

It is noted that this work was targeted at specific zones of interest and cannot nor was intended to relate to overall mineral abundances within ore or waste zones within the deposit. The information provides estimates of mineral associations and mineral forms within the samples selected for the study and is expected to provide a broad understanding of mineralogy across the Goliath deposit.

Pyrite is the predominant sulphide mineral observed in the studied samples. We note that 1% pyrrhotite is identified with trace pyrite and other sulphides in TLTS-2, and 5% pyrrhotite with minor pyrite was identified in TLTS-9. Subequal quantities of pyrite and pyrrhotite at 3% each and 1 to 2% total were identified in TLTS-3 and TLTS-8 respectively suggesting some localized relative enhancement of pyrrhotite relative to pyrite for some rock. Sphalerite is either not identified in this set of samples or identified in relatively low abundance to iron sulphites (pyrite and sometimes pyrrhotite). As point of clarity, the third sentence of paragraph 2 page 65 of Appendix JJ states the following "…The modal abundance of sphalerite usually exceeds that of galena and pyrite.", which seems to conflict with other project geological observations and descriptions. This statement is also included in the 43-101 Preliminary Economic Assessment Update on the Goliath Gold Project (p. 56, CSA Global Report Nº R177.2017 17 April 2017). Discussions with Treasury Geologists confirmed that pyrite is the predominant sulphide mineral across the deposit. The above statement appears to be referring to gold mineralization assemblages rather than overall abundances within the rock.

Carbonates (mainly as dolomite) are noted at from 1 to 3% in TLTS-1, TLTS-8 and TLTS-10. Trace carbonate <1% (dolomite/ankerite) was identified in TLTS-3 and trace carbonate <1% (dolomite) was identified in TLTS-11. No carbonate minerals were noted in other thin sections inspected.

Table 2: Summary Descriptions of Selected Rock Sample Thin Sections - 2012 Petrographic Microscopy Report

TLTS-1	Appears to represent a vein system of relatively coarse-grained, pale purple anhydrite and lesser quartz, with selvages of quartz, amphibole and local green biotite, minor pyrite, and wallrock of plagioclase-quartz-relict mafic phyric felsic metavolcanic/hypabyssal intrusive rock, altered to calcic plagioclase-green biotite-carbonate-clinozoisite/trace allanite and minor pyrite.
TLTS-2	Fine-grained plagioclase-biotite-muscovite-staurolite-ilmenite-trace pyrrhotite schist with irregular layers of coarse blastic andalusite -minor staurolite-muscovite-pyrrhotite-ilmenite tourmaline-trace pyrite/chalcopyrite; it may represent mafic metavolcanic
TLTS-3	Moderately foliated, alternately quartz-calcic plagioclase or tremolite/actinolite-zoisite muscovite/phlogopite-pyrite-pyrrhotite (trace chalcopyrite, sphalerite)-accessory sphene-carbonateschorlitic tourmaline schist, possibly representing former felsic/intermediate volcanic ( ).
TLTS-4	Well foliated quartz-sericite/muscovite-minor plagioclase-pyrite-epidote-accessory Kspar sphalerite-apatite schist, with prominent quartz phenocrysts and rare relict feldspar (mainly plagioclase), possible mafic mineral sites, suggestive of felsic metavolcanic ( ).
TLTS-5	Well foliated quartz-sericite/muscovite-pyrite-accessory sphene ±rutile schist, with prominent quartz phenocrysts and rare relict feldspar (possibly originally plagioclase, now sericitized) sites, suggestive of felsic metavolcanic ( ).
TLTS-6	Quartz-phyric, well foliated/laminated, calcic plagioclase-quartz-biotite-muscovite-Kspar accessory pyrite/pyrrhotite-tourmaline-clinozoisite-trace sphalerite-chalcopyrite- apatite schist, possibly representing felsic/intermediate metavolcanic/hypabyssal rock ( ).

TLTS-7	quartz- plagioclase phyric, well foliated/laminated, plagioclase-quartz-biotite-muscovite Kspar-accessory pyrite/pyrrhotite-(clino-) zoisite-trace sphene/rutile-sphalerite-chalcopyritetourmaline-apatite schist, possibly felsic/intermediate metavolcanic/hypabyssal rock
TLTS-8	possibly weakly plagioclase-mafic phyric, plagioclase-quartz-biotite-muscovite-minor carbonate-epidote-pyrite-pyrrhotite-chlorite-sphene/rutile ±apatite rock appears likely to represent fine-grained meta-diorite/micro-diorite ( ).
TLTS-9	moderately foliated amphibole-lesser phlogopite-minor pyrrhotite-pyrite-trace chalcopyriteKspar-quartz -zoisite -sphene schist likely represents mafic metavolcanic rock that may have contained mafic phenocrysts, now flattened into the foliation as phlogopite porphyroblasts.
TLTS-10	quartz-feldspar phyric, plagioclase-quartz-muscovite-biotite-pyrite-pyrrhotite-carbonatezoisite/clinozoisite ±sphene/rutile-Kspar-tourmaline schist may represent intermediate metavolcanic.
TLTS-11	unusual, mica-rich (sericite/muscovite, possibly locally fuchsite) schist with coarse dark tourmaline (schorl) crystals, minor albitic plagioclase, quartz, accessory ilmenite (partly altered to rutile) and traces of late carbonate and iron sulfides, possibly representing an exhalative horizon
TLTS-12	fine-grained, foliated quartz-muscovite/sericite-minor calcic plagioclase-phlogopiteaccessory pyrite-trace zoisite schist with foliation-parallel sulfide-rich bands (or veins) composed of pyrite-chalcopyrite-sphalerite-pyrrhotite-quartz-phlogopite; possible relict quartz and feldspar phenocrysts suggest the host rock may have originally been intermediate volcanic.
TLTS-13	massive to semi-massive sulfides, composed of coarse cubic pyrite with interstitial, subhedral sphalerite, minor galena and rare minute chalcopyrite, and gangues of quartz, plagioclase, muscovite and trace phlogopite.
TLTS-14	well foliated, laminated, strained quartz, sericite/muscovite and sulfides (pyrite, sphalerite, trace galena and chalcopyrite, minute inclusions of chalcopyrite and possible tetrahedrite), and appears to resemble an exhalite, or exhalative rock, possibly close to semi-massive sulfides.
TLTS-15	well foliated, laminated, sericite/muscovite, minor quartz, and significant sulfides (pyrite, sphalerite, lesser galena and chalcopyrite, minor tetrahedrite); it appears to resemble an exhalite, or exhalative rock ( ), transitional to semi-massive sulfides. The composition of tourmaline appears to be dravitic, which is commonly considered important for massive sulfide exploration.
TLTS-16	well foliated, laminated, strained quartz, sericite or muscovite and sulfides (pyrite, sphalerite, trace galena and chalcopyrite, pyrite with local minute inclusions of chalcopyrite, galena, sphalerite and possible tetrahedrite, rare native Au or electrum), and appears to resemble exhalative rock or quartz phyric felsic volcanic ( ), with laminae of semi-massive sulfides.
TLTS-17	well foliated, laminated, quartz-muscovite ±tourmaline-apatite schist, significant sulfides (pyrite, sphalerite, lesser galena, trace chalcopyrite, tetrahedrite, pyrrhotite, rare arsenopyrite); it appears to resemble an exhalite, or intensely altered/deformed felsic volcanic /semi-massive sulfides. Composition of tourmaline appears to be dravitic, which may be important for massive sulfides.
TLTS-18	well foliated, laminated, strained quartz, sericite and sulfides (pyrite, trace pyrrhotite, sphalerite, galena and chalcopyrite, possible tetrahedrite or other sulfosalts/unidentified

	phases, significant native Au), and appears to resemble exhalative rock or quartz phyric felsic volcanic ( ), with laminae of sulfides and gold.

3. Tailings operation details to be provided specifically on beaches Valued Components for Fish and Fish

During operations the tailings will remain in a saturate condition so that in the event of the formation of a small tailings beach area, there would be minimal dust that may impact surrounding surface water and subsequently fish and fish habitat. Addition of recent tailings overtop of tailings beaches using the deposition plan will also help to maintain the tailings beaches in a saturated condition. Applications of other substances to reduce dust has shown in other mines to be successful. Should the follow up program indicate issues with dust from the TSF or complaints of dust from the TSF be received Treasury Metals will act and identify additional dust mitigation measures for the TSF beaches.

4. What is the plan for collection of new data. Add additional description to follow up programs and studies planned related to geochemistry

Additional details and proposed studies have provided in the updated Goliath Gold Project Follow-Up Program Addendum and have been restated below.

Geochemical Monitoring

On-going geochemical studies are expected to be integral with mine planning for tailings and waste rock management to reduce risk, and potentially lower water treatment costs during operations and optimize future mine closure options. A number of additional studies are planned or being evaluated to be executed with on-going further detailed mine planning.

- Conduct supplemental ML/ARD static testing analysis to assess the potential influence of aged (2009 and 2010) drill core on previous ML/ARD investigations and more completely assess mercury and selenium as contaminants of potential concern, as well as chloride and phosphorus. Mercury, selenium, chloride and phosphorous will be routinely included in any additional follow-up geochemical testing and monitoring programs.

- With the support of project geologists, review the potential value (and execute as appropriate) an expanded geological study and static ML/ARD testing program to identify whether there is potential geological zonation of neutralization potential within the future open pit that could result in the ability to segregate rapid and delayed acid onset PAG waste rock that would potentially reduce water treatment requirements. To the extent possible with available sample materials, assess whether waste rock grain-size is likely to exert an influence on ML/ARD for Goliath rock.

- Review underground mine-plan and geology when available and conduct a targeted analysis of representative samples of ore, waste rock and tailings as required.

- With the support of geology and mining teams review the range in ore characteristics expected over the life of mine and assess potential variability in ore through supplemental ML/ARD characterization of selected ore samples and low grade ore samples as appropriate.

- Continue operation of existing field cells (one for each lithology) and consider initiation of a supplemental program using crushed drill core or early blasted rock as available to more closely simulate field leaching conditions for major lithologies

- Initiate a supplemental kinetic testing program for low grade ore, waste rock and tailings to address gaps in the current program. The specific details of this program would be informed by additional studies and testing described above.

    - A focus of this program will be to better understand acid onset times of low grade ore, waste rock and tailings and the evolution of acidic drainage to support updated water quality modelling for the project.

    - Execution of column tests (e.g. trickle leach or subaqueous) on selected representative waste rock or tailings materials will be considered where such additional water quality assessment is warranted.

    - Materials for tailings kinetic test work would originate from metallurgical test work and include analysis of tailings supernatant as an assessment of future mill process water. The work would include analysis suitable to assess the concentration of thiosalts present (if any).

    - All kinetic test work would be guided, executed and continued to appropriate termination in accordance with MEND 2009 guidance. Humidity cell closeout analysis will be completed in accordance with MEND 2009.

- Mineralogical analysis by petrographic microscopy and Rietveld X-ray diffraction will be completed on selected samples to aid in understanding acid drainage and metal leaching. As a value-added item, detailed mineralogical studies such as QEMScan or MLA may be considered if they are deemed to provide value in understanding and managing future drainage quality from waste rock and tailings.

- Develop a program to identify suitable construction rock for the Project that could target previously unsampled regions of the open pits, other potentially low sulphide on-site rock or identification of an off-site source.

- Continue to update mine rock management planning for all aspects of the Project including underground operations, based on the further and continuing geochemical studies.

- Explore mitigation options and possibly further studies on waste rock and tailings covers to support detailed planning and design to minimize the risk of ARD development and to lower potential water

treatment costs during operations and work toward eliminating a need for water treatment in the closure and post-closure phases of the Project.

- Develop a pit lake model to predict pit lake water quality during the pit filling and post-closure periods, with such model to identify applicable short-term and long-term water management and treatment requirements. The pit lake model may be periodically updated as new information becomes available.

5. Provide description of analogue sites including links to ore genetic models

In terms of geological and ore deposit models, Treasury favors a hybrid deposit-type model, also known as a "Pre-orogenic Atypical Greenstone Belt Gold Model" as a promising genetic model to explain the geology, structures and mineralization observed within the Goliath Gold Deposit (Section 8.4, 43-101 Preliminary Economic Assessment Update on the Goliath Gold Project, CSA Global Report Nº R177, 17 April 2017). In this model, early gold-rich volcanogenic sulphide mineralization is overprinted by subsequent deformation and alteration events which can contribute to further concentration and/or remobilizing of both precious and base metals. This model also integrates potential VMS and Magmatic Hydrothermal Archean Lode Gold Deposit ("Magmatic Hydrothermal") models in the formation of the deposit. It is likely that the Goliath Gold Deposit does not fit into any one idealized model and neither should be discounted. Additional descriptions of ore deposit and interpretation with respect to the Goliath Gold deposit are provided in the referenced report.

Similarities have been noted between the Goliath Gold and Rainy River Gold deposits. Gold mineralization at Rainy River is associated with strong sodium depletion, potassium enrichment (sericite alteration), silicification, aluminous alteration, a strong gold-pyrite association, ubiquitous sphalerite, chalcopyrite, garnets (spessartine), and has a very high ratio of silver to gold. This deposit is also isoclinally folded and has both gold and electrum. The Goliath Gold Deposit shares nearly all these characteristics except it has a weak gold-pyrite association and no garnets or significant chalcopyrite mineralization.

The Rainy River deposit also contains a relatively high proportion of PAG rock although the notable apparent low carbonate content of the Goliath Gold deposit is different and leads to the very limited quantities of NPAG rock identified to date and the expected more rapid acid on-set times currently assumed for a significant portion of Goliath Gold rock.

In terms of other potential analogue sites in terms of ML/ARD, not many come immediately to mind with such low apparent carbonate NP and moderate sulphide content. Legacy sites like Henry's Knob may have some similarities in that some of the host rock was a pyrite-bearing muscovite schist and ARD development suggests low neutralization potential; however, the geological setting is different and the mine produced kyanite ore with pyrite. The kyanite ore was also pyrite-bearing quartzite which has little similarity to the Goliath Gold deposit.

6. Cross sections indicating sampling locations and sulphur content to be provided

Cross sections have been prepared by Treasury Metals showing borehole traces, ABA sample locations, open pit limits, and histograms of available ICP sulphur data along the boreholes (See attachment).

To broaden the statistical assessment of sulphur content of Goliath Gold Project waste rock and ore, summary statistics for sulphur across the entire Project deposit have been tabulated below. This data was extracted from the current exploration data base. A more detailed subdivision of samples specifically within the future open pit and underground workings is not currently available.

Table 3: Deposit-wide Summary Statistics for ICP Sulphur (Ore and Waste rock)

	S_per_ICP (samples w/ Au < or = 0.4gpt)	S_per_ICP (samples w/ Au > 0.4gpt)
Count	37345	5286
Minimum	0.005	0.005
5th Percentile	0.10	0.26
10th percentile	0.17	0.40
25th Percentile	0.36	0.73
Median	0.69	1.22
Average	0.87	1.44
75th Percentile	1.15	1.87
90th Percentile	1.69	2.68
95th Percentile	2.11	3.29
Maximum	34.5	13.3

7. Review and provide additional discussion on potential for selenium leaching

It has been identified that 28 of 161 samples had detectable selenium concentrations above a ten times crustal abundance screening limit. It was also noted that the method detection limit for selenium was 0.7 mg/kg for Ecometrix samples and 1 mg/kg for KCB samples, while the ten times screening criteria was lower at 0.5 mg/kg. However, leaching tests did not identify a notable risk for selenium leaching from waste rock or tailings materials.

Metal leaching tests including 17 shake flask extraction tests with DI water and 11 with 0.1M HCl with most concentrations at or below method detection limits (<0.0001 mg/L). Five of the 17 DI leach samples exhibited selenium leaching marginally above the detection limit with the highest reported value at 0.00046 mg/L. The weak acid SFE leach tests did not result in any notable increase in selenium leaching.

Waste rock humidity cells had selenium concentrations generally below analytical detection limits (<0.0001 mg/L). Tailings humidity cells exhibited similar leaching behaviour with steady leachate concentrations most results at or below the analytical detection limits.

Though no specific risk for selenium leaching has been identified based on testing to date, it will continue to be assessed in all on-going ML/ARD studies and monitoring for the Project.

8. Review and provide additional discussion on potential for thiosalts in tailings effluent

The predominant sulphide expected in milling of Goliath gold ore is pyrite. Overall, sulphide content is expected to be moderate in the range of 1 to 2% sulphide. There does not appear to be a particular risk for thiosalt formation during mineral processing of these ores, but testing in concert with additional proposed tailings kinetic testing has been included in planned work programs to accompany continued mine development (Goliath Gold Project Follow-Up Program Addendum, FUP1.3).

9. Provide statistics on Carbonate NPR as they relate to humidity cells

Carbonate NPR data for waste rock humidity cells compared to statistics from ABA data set is provided in following table.

Table 4 – Humidity Cell Carbonate NPR compared to Summary Carbonate NPR Statistics

Cell ID	CarbNPR	Carbonate NPR Statistics*								
		Min	5p	10p	median	average	stdev	90p	95p	max
BMS-A	0.098	0.002	0.010	0.017	0.049	0.039	0.15	0.21	0.50	0.68
BMS-B	0.097									
BMS-C**	0.022									
BS-A	2.1	0.011	0.013	0.014	0.088	0.15	1.4	3.0	3.9	4.2
BS-B	0.26									
BS-C**	0.018									
MSS-A	0.060	0.001	0.005	0.006	0.061	0.031	0.17	0.26	0.47	0.74
MSS-B	0.017									
MSS-C**	0.006									
MSED-1	0.16	0.008	0.014	0.019	0.099	0.060	0.38	0.51	0.89	1.3
MSED-2**	0.088									

* Carbonate NP/AP. Carbonate NP from Ecometrix inorganic carbon data. KCB samples not included since only total carbon data was available which can over-estimate inorganic carbon content. AP calculated from sulphide S.
All cells operated for minimum of 63 weeks.
** Cell operated for 85 weeks.

10. Blank=- miscounted during the meeting. It has been included in the memo for consistency.

11. Provide further description of scaling used in water quality modelling

A description of modelling assumptions and scaling completed for site water quality modelling are provided in Sections 5.3.2 and 5.3.3 of Appendix JJ. The modelling approach is similar to work completed by AMEC for the Rainy River Project in 2013. Loadings from open pit and waste rock surfaces were determined from project humidity cell data. Scaling was on the basis of adjusted geometric surface areas between humidity cells and waste rock assuming 50 m^2/t for future waste rock, which was based on a review of published and unpublished data on waste rock surface areas that indicated a range of 13 to 52 m^2/tonne. Pit wall adjustments assumed a fracture factor of 50 m^2 per square m of exposed wall rock. Due to the absence of steady state acidic drainage from humidity cells, the acidic PAG source term was derived by assuming a sulphate leaching rate that was 100 times that of neutral leaching Goliath Gold humidity cell rates. Site specific acidic metal loadings were simulated by scaling to the inferred sulphate loading rate based on the metal to sulphate ratio in acidic field cell drainage (pH <4). The 100 times adjustment for acidic leaching was deemed generally conservative, based on experience with available NP depleted humidity cell testing completed from other similar projects. Acidic leaching rates for tailings were based on directly measured rates from the Goliath Gold Tailings 1 cell in the final week of operation, at its most acidic condition prior to shut-down (pH 3.7).

12. Additional water details for water treatments from December meeting Regarding RO – more information about pre-treatment of Acidic waters

Full details are provided in TMI_949-SW(2)-02B.

During the design phase, the reverse osmosis system will be designed to incorporate customizable, modular vendor packages. The treatment system would include multimedia filtration prior to reverse osmosis (as is typical of a reverse osmosis treatment system), treatment is not expected to be ineffective under normal operation. The reverse osmosis treatment systems will be designed to have capacity for worst-case surface water quality scenarios. Specifically, the system will be designed on the basis of influent water comprised entirely of TSF supernatant water (the composition is provided in Table 3.8.8-1 of the revised EIS). This represents an unrealistic condition for influent quality as the excess water sent to the treatment plant can come from three (3) sources; namely, the TSF supernatant water, dewatering water held in the minewater pond, and runoff collected in the surface runoff collection ponds, with TSF supernatant water representing an average of 7% of the influent water feed on an annual basis. The system will be designed and operated that discharge does not occur during a water quality upset. As described in Section 3.8.9 of the revised EIS (April 2018), the initial component of the water treatment plant will be a transfer tank. Excess water will be pumped from the transfer tank to a three-chamber multimedia filtration system, operating in parallel, via three multimedia filter feed pumps. The transfer tank may also be used to capture any out-of-compliance reverse osmosis permeate water which can be diverted from discharge. In addition, this tank could be utilized as a temporary short-term storage volume for the diversion of reverse osmosis reject water in order to continue operation of the reverse osmosis system while other areas of the facility are shut-down for routine repair or maintenance. t. As only the excess water not required in the process will need to be sent to the treatment plant, and ultimately discharged, Treasury Metals have the capability of managing water onsite within the TSF supernatant pond, the runoff collection ponds and within the minewater pond in the event that the water treatment plant is temporarily unavailable.

The proposed reverse osmosis treatment systems operate optimally when maintained under constant pressure, and typically are designed with sufficient equalization capacity to do so. This also results in increased capacity to attenuate treatment upsets. Due to the stringency of typical reverse osmosis systems, updating the water quality assessment is not needed. The effectiveness of treatment for a reverse osmosis system is typically based on removal rates. In reverse osmosis systems, multiple membrane trains are typically utilized in parallel, with one train always offline for periodic cleaning and another as a back-up. Each membrane train is monitored for changes in removal rates of key parameters. When removal rates decrease significantly or when back-pressure increases significantly, this membrane train is flagged for cleaning and is taken offline for the subsequent cleaning cycle. This periodic cleaning regiment extends the life cycle of the membrane and prevents irreversible fouling and loss of treatment capacity. Should a membrane irreversibly foul, the back-up system comes online, and the foul membrane discarded and replaced. Should the back-up system fail, the flow per train is increased by a factor of N/(N-1) to make up the hydraulic demands of the system. These built-in redundancies and back-up systems would provide sufficient contingency for the treatment system.

13. Confirm importance of pit high-walls on long-term pit drainage water quality

The open pit is going to be monitored and batch treated while filling. Additional batch treatments may also be required if pit lake water quality is degraded. The expectation is that it may take an additional 1-2 batch treatments to ensure that pit lake water quality is suitable at the point it is discharged. If water quality remains degraded then Treasury Metals will look to mitigate any potential effects on surface water with additional water treatment options (e.g. in situ RO plant, deep water lime injection etc.)

Based on the EA open pit design from Treasury (which included interpreted overburden thickness at the pit limit), no exposed bedrock high-walls are anticipated to be present once the open pit is completely flooded to the spill-way elevation of 388 masl. Regardless of pit wall height, pit lake water quality will be monitored and treated as necessary to ensure the protection of water quality and the protection of fish and fish habitat.

14. Commitment in the ongoing management by Treasury Metals to consider covering and perhaps placement of limestone with the WRSA to slow or mitigate ARD onset post closure

The following commitment has been added to the Goliath Gold Project Commitments Registry.

> *Treasury Metals is committed to evaluate the long term needs related to closure of the open pit, WRSA and surface water quality in post-closure and will consider all viable options to ensure its long term viability. This will include an evaluation of a suitable cover, placement of limestone or caustic material within open pit or within the WRSA to prevent or prolong the onset of ARD.*

15. Clarify the time to flood underground and highlight where that was mentioned

An assessment of the timeline for flooding the underground was not presented in the revised EIS (April 2018). The expectation is that the inflow rate of groundwater to the underground workings will be comparable to that of the open pit, therefore the expectation is that the underground workings will flood

in the same time as the open pit, if not sooner (~4-6 years). The groundwater monitoring program provided as part of the Goliath Gold Project Follow Up Addendum would be used to collect data on the variable required to confirm this prediction.

16. Include sensitivity run in the water addendum to incorporate TSF liner degradation- increase infiltration rate into the capped WRSA to be 50% and update the subsequent acid loading from the WRSA post closure

A separate sensitivity run has been included in the Goliath Gold Project Water Addendum that models the effects on surface water quality due to an increased rate of infiltration into the capped WRSA during post-closure. Specifically, the total infiltration into the WRSA for this sensitivity run will be increased to 50% of the precipitation (i.e., 329 mm/year), 75 mm/year of which is assumed to infiltrate into the underlying overburden and bedrock, and the remaining 254 mm/year would drain laterally through the WRSA to the perimeter to be captured by the perimeter ditches and ultimately report to the open pit. The surface water quality modelling continues to indicate that surface water quality will be largely unchanged as a result of the Project, with resulting water quality being the same as, or slightly improved from the existing condition for most parameters. The results of the surface water quality modelling with an increased infiltrations rate through the capped WRSA resulted in one (1) additional predicted residual adverse effects in Thunder Lake (residual adverse effects represent situations where the predicted concentrations for a parameter are higher than existing conditions). In the situation where the water quality is predicted to the higher than existing condition, the resulting water quality remains below the PWQO for the protection of aquatic life.

The Goliath Gold Water Addendum provided as part of the Round 2 process provides the full results.

17. Mitigation by pumping post-closure to ensure that weather cover is maintained if climate model shows there is a risk- if commitment is made what are the financial assurances.

Treasury Metals will explore mitigation measures as part of the closure planning to ensure the long term viability of whichever closure option is selected. This may include a passive pumping system from the open pit to the TSF in the event the wet cover is selected and climate change indicates that it may not be viable long term.

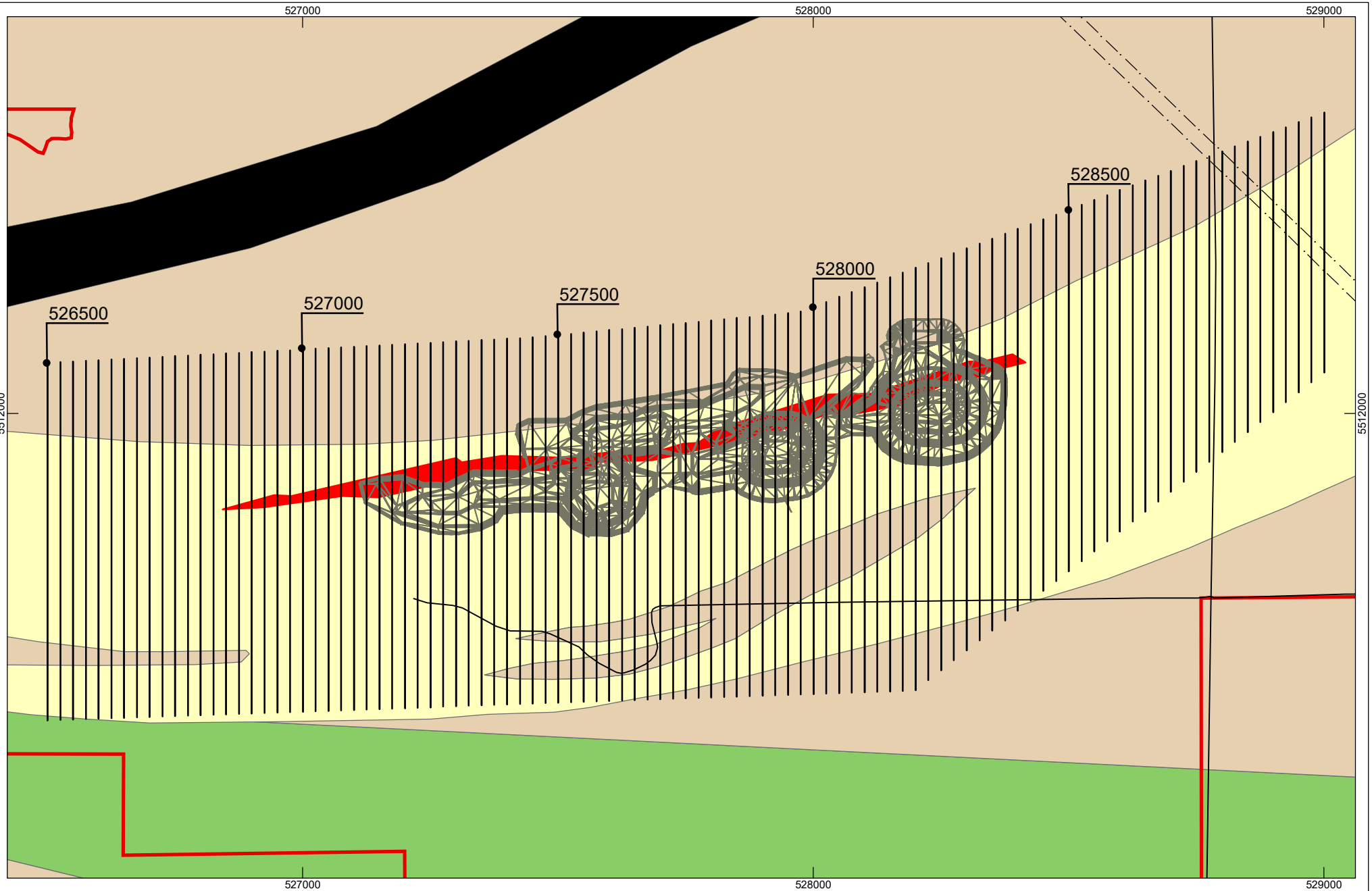
18. Talk more about mitigative measures during operations for WRSA, supplemental mitigation

As stated in the response to Item 14, Treasury Metals is committed to evaluate the long-term needs related to closure of the open pit, WRSA and surface water quality in post-closure and will consider all viable options to ensure its long- term viability. This will include an evaluation of a suitable cover, placement of limestone or caustic material within the open pit or within the WRSA to prevent or prolong

the onset of ARD. To date, the following mitigation measures have been incorporated into the Project design to both limit the onset of ARD, and to prevent ARD affected waters from moving offsite. Table 5 below provides both the proposed mitigation measures for implementation, as well as mitigation measures that are being considered and are subject to further assessment.

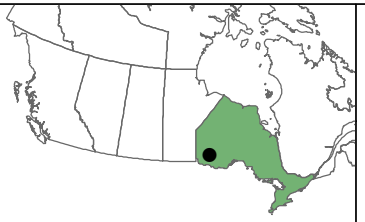
Table 5: Proposed Mitigation Measures for the WRSA During Operations

Effect	Mitigation Measures	
	Planned Mitigation Measures	Mitigation Measures being Considered
Onset of ARD in WRSA	—	Treasury Metals is considering the implementation of a soil cover over the WRSA as it is being constructed to minimize the exposure of the waste rock to the atmosphere.
	—	Treasury Metals is considered the addition of lime or another caustic material to the WRSA during its construction to neutralize the potential of ARD.
Seepage and Runoff from the WRSA	Construction of a seepage and runoff collection ditch around the WRSA to capture any contact water from leaving the site. This water will be directed to a separate collection pond from the rest of the water management system and batch treated prior to being sent for use in ore processing or sent to the RO plant for treatment.	—



LEGEND

- Hydro Line
- Natural Gas Pipeline
- Railway
- Highway
- Local Road
- Faults
- Main Zone Mineralization
- Property Boundary
- Waterbody
- Iron Formation
- Diorite - monzonite - granodiorite suite
- Felsic to intermediate metavolcanic rocks
- Mafic and ultramafic rocks
- Mafic to intermediate metavolcanic rocks
- Massive granodiorite to granite
- Metasedimentary rocks
- Muscovite - bearing granitic rocks



N W E S

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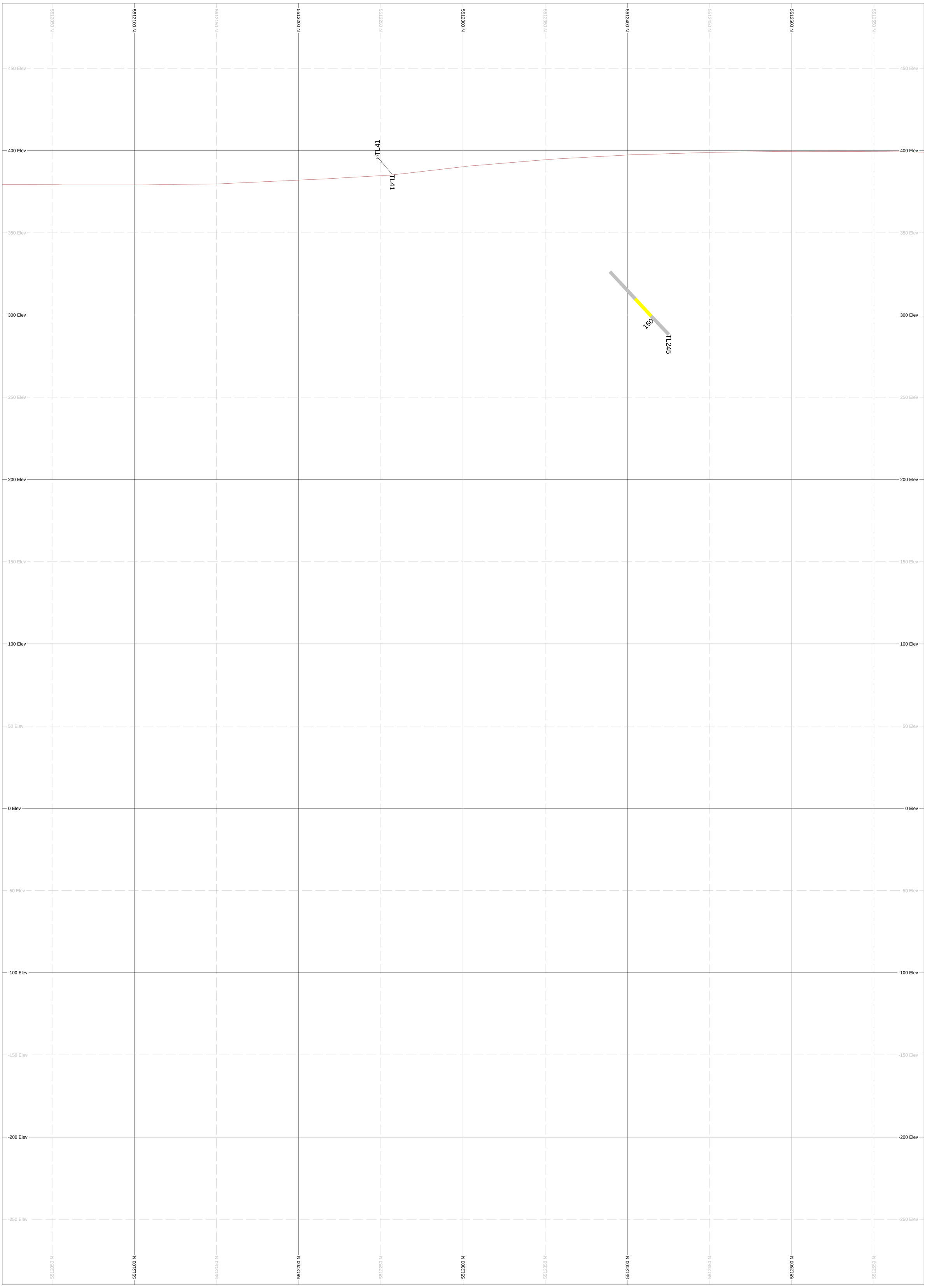
0 50 100 150 200 Meters

Geology Map with Cross Section Grid
Goliath Gold Project, Ontario, Canada

TREASURY METALS Inc.

NAD83 UTM Zone 15N
Drawn by: AL, Project Office
Jan, 2019
Not for Navigational Purposes



Sulphur Percentage (%)

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Geochemical Sample Locations

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Goliath Gold Project	
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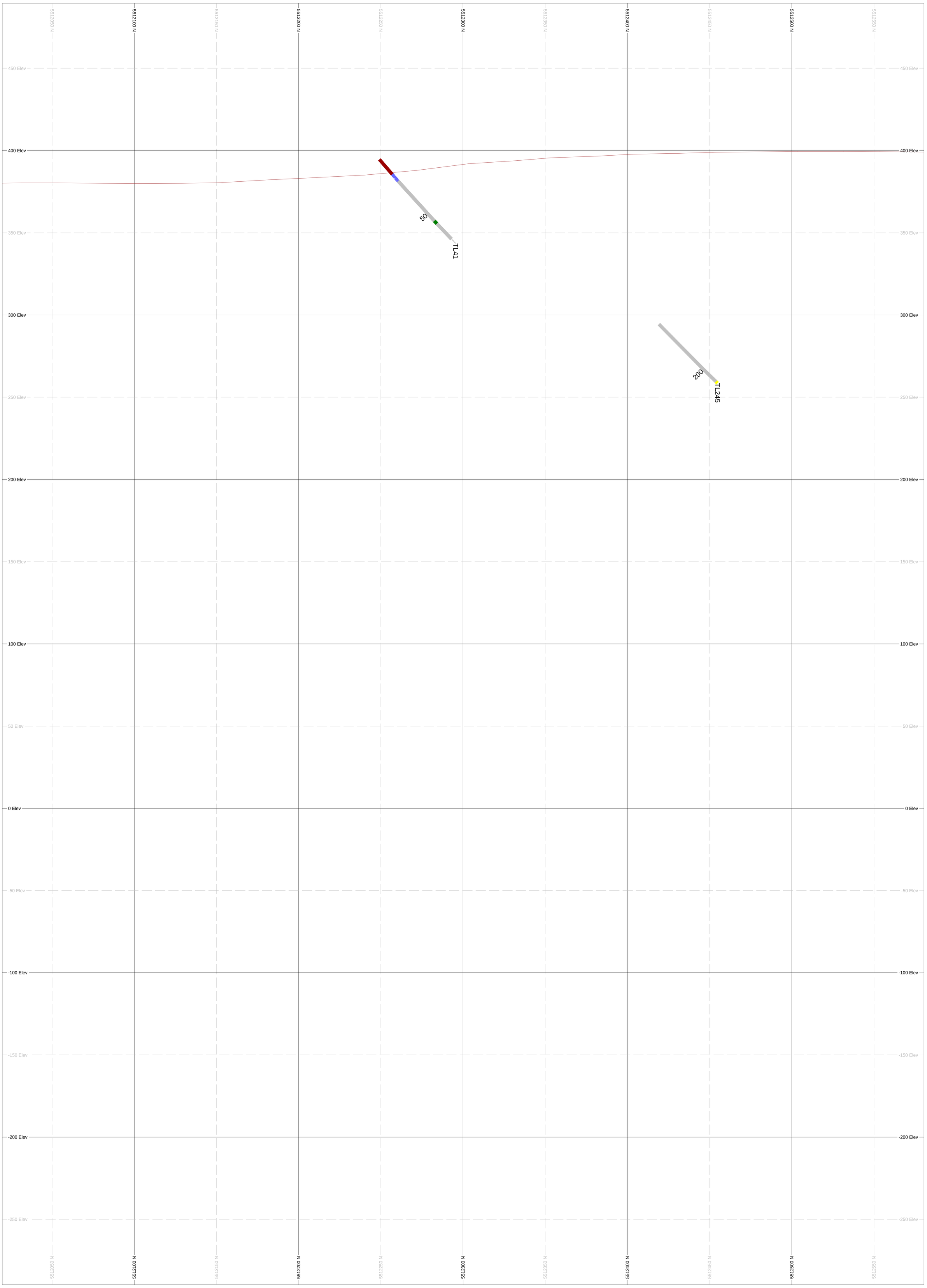
Date: January 18, 2019	Office: Dryden, ON



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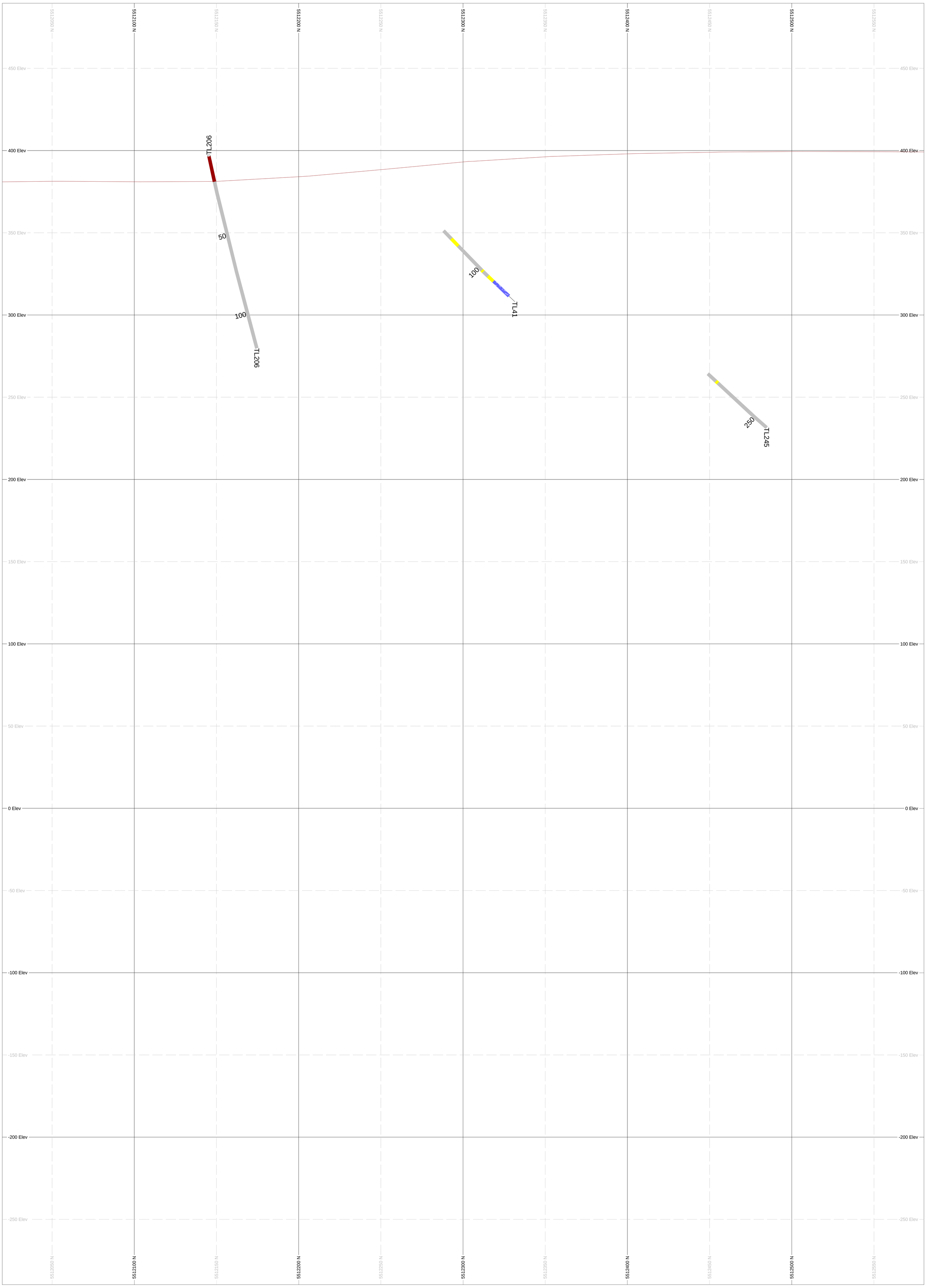

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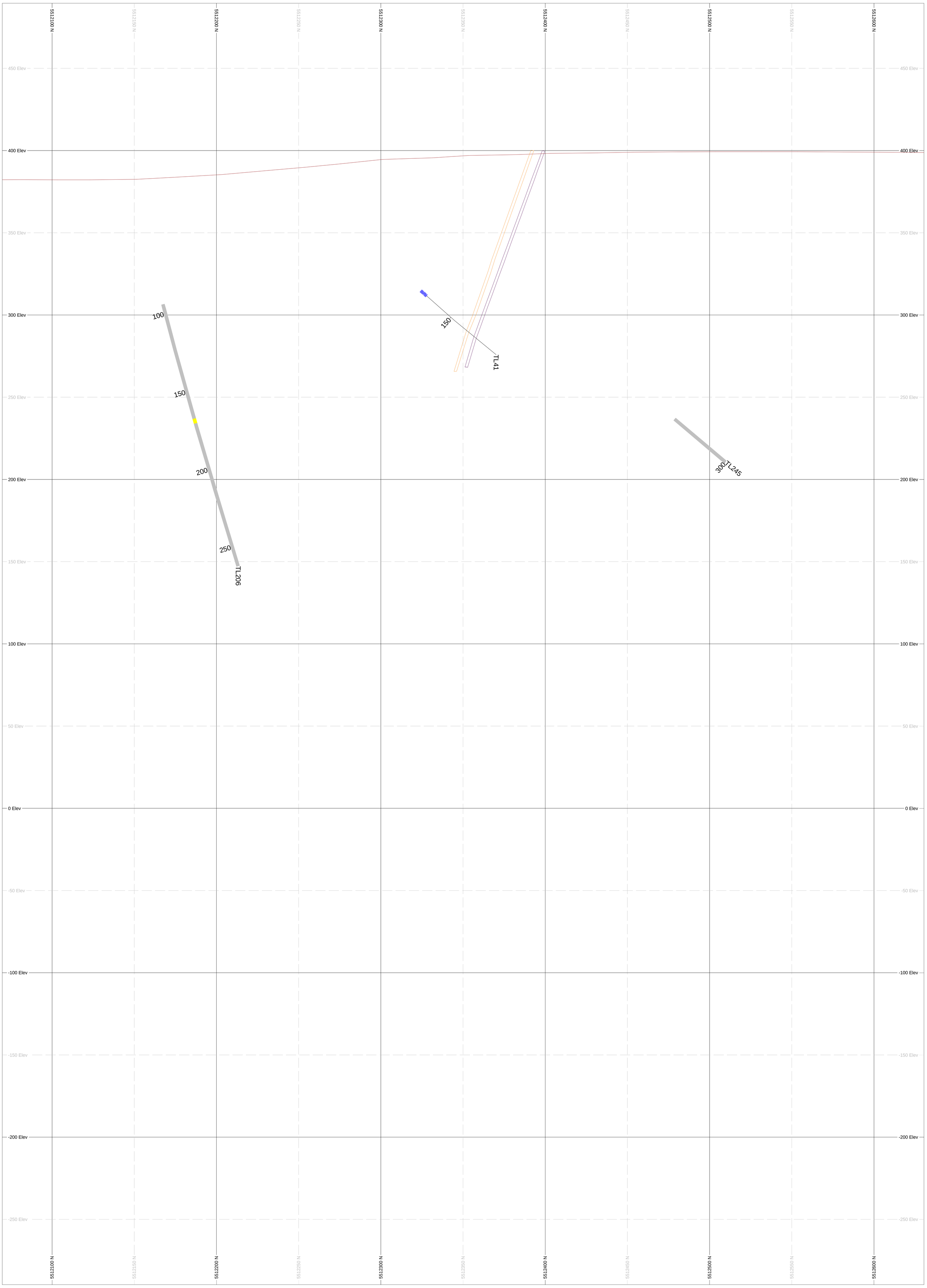

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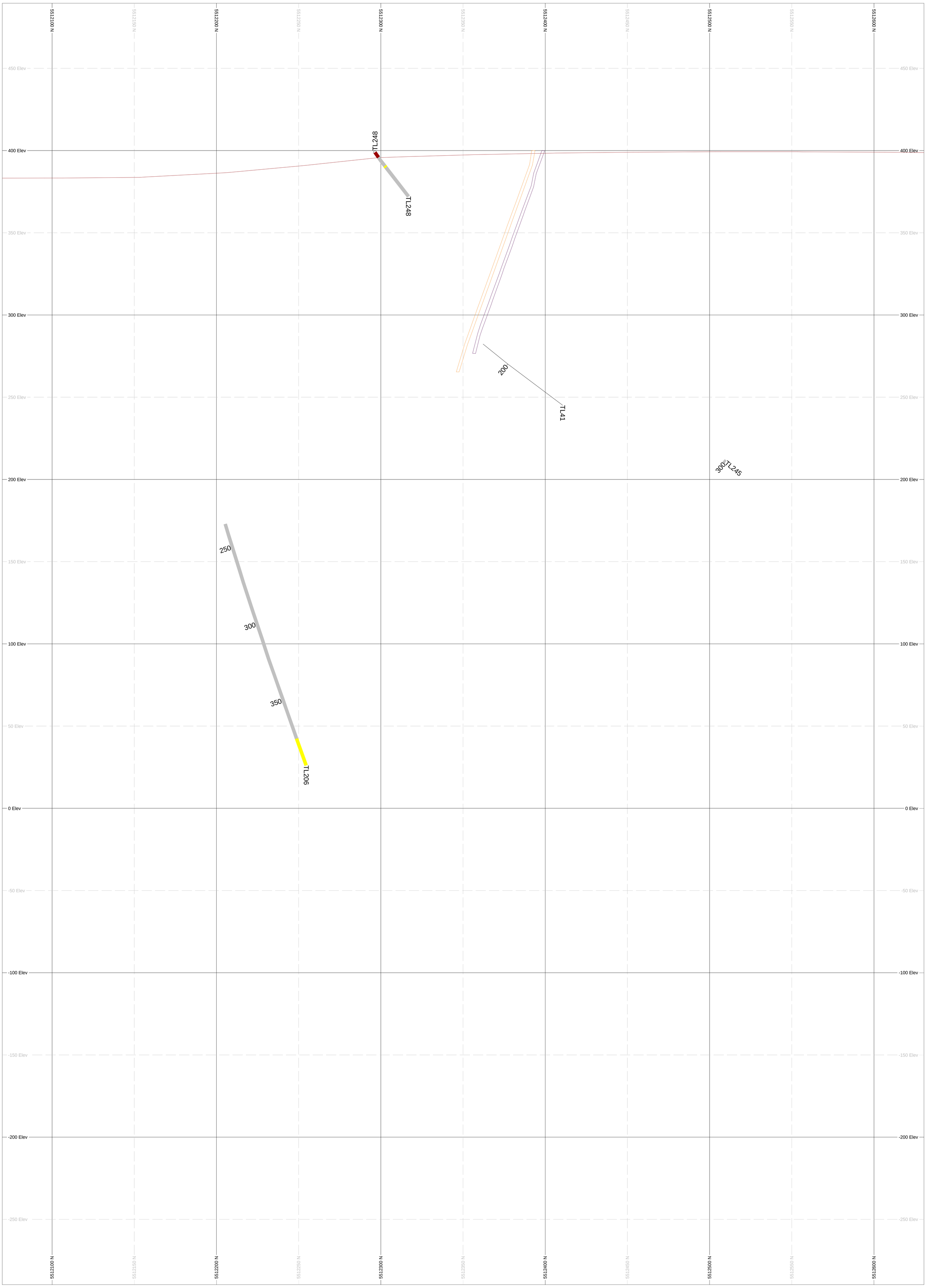

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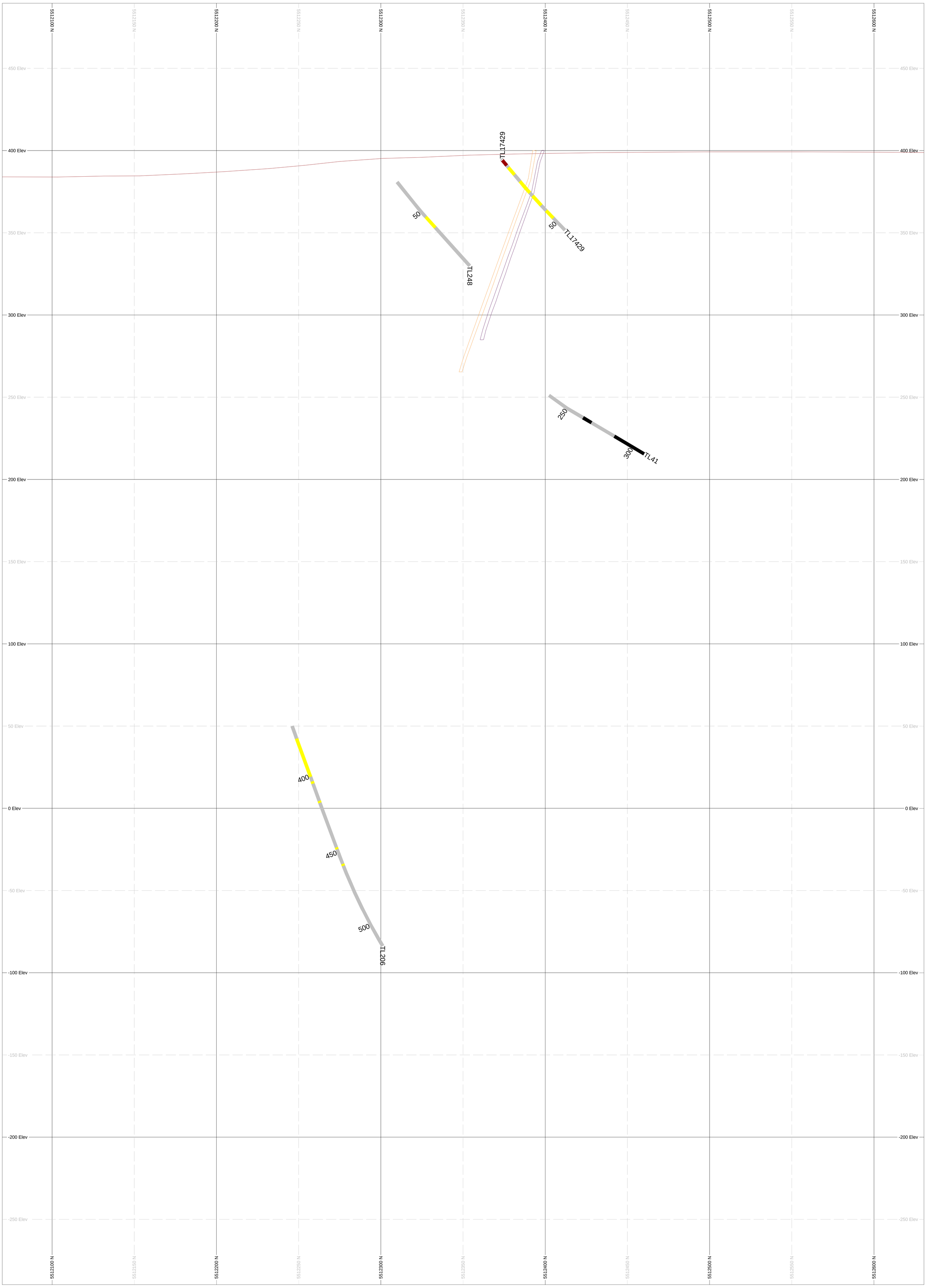

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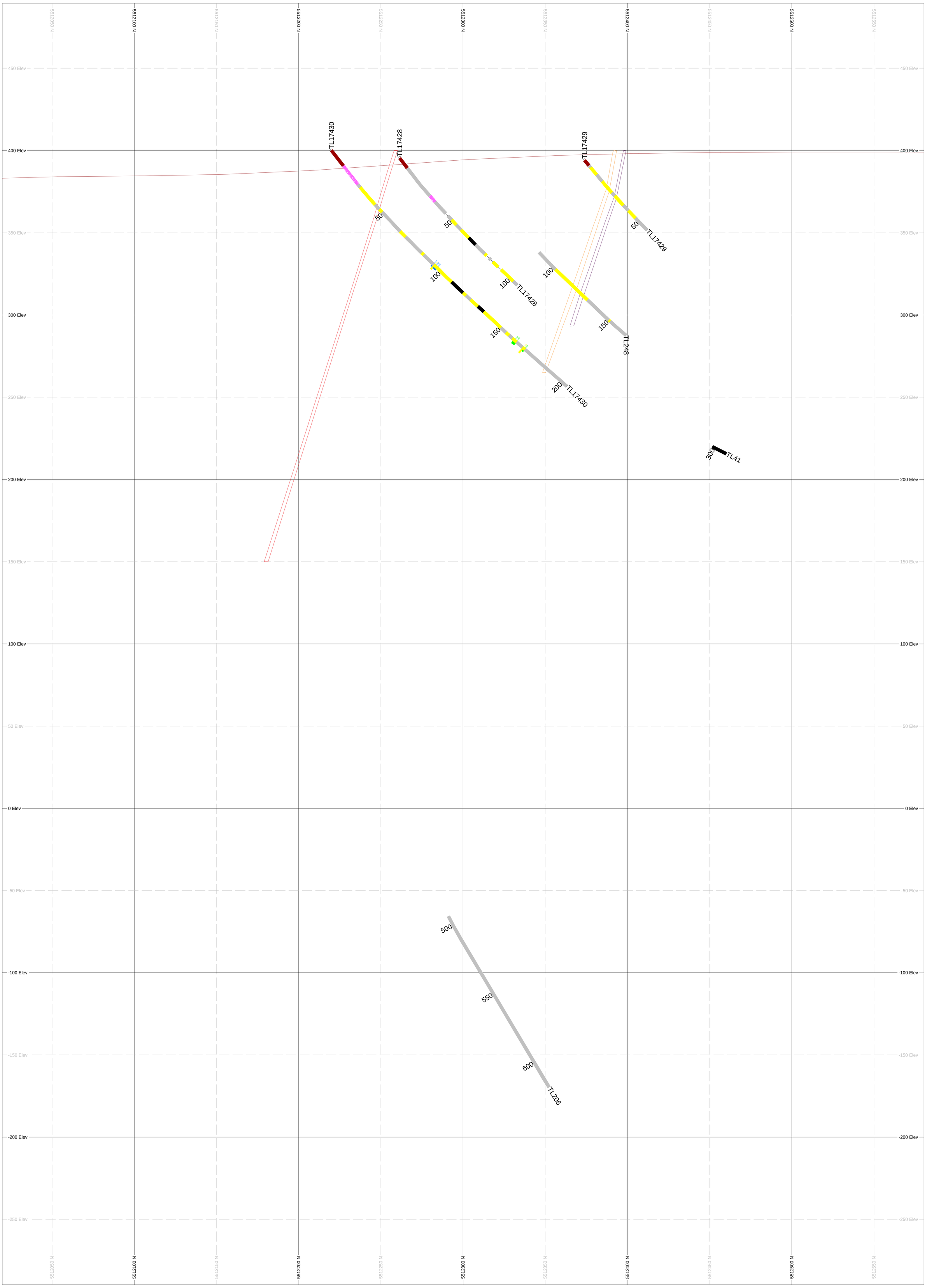

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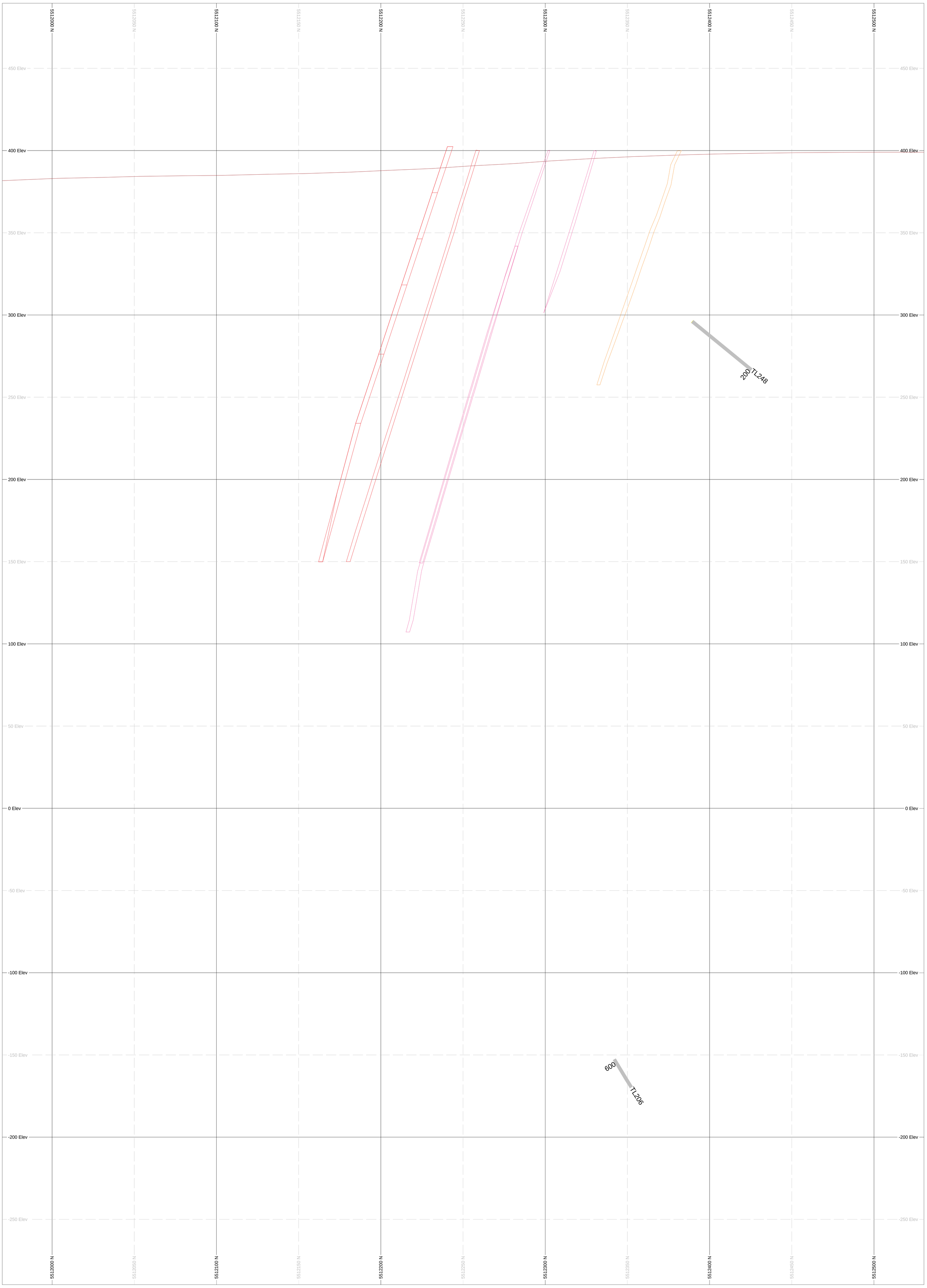

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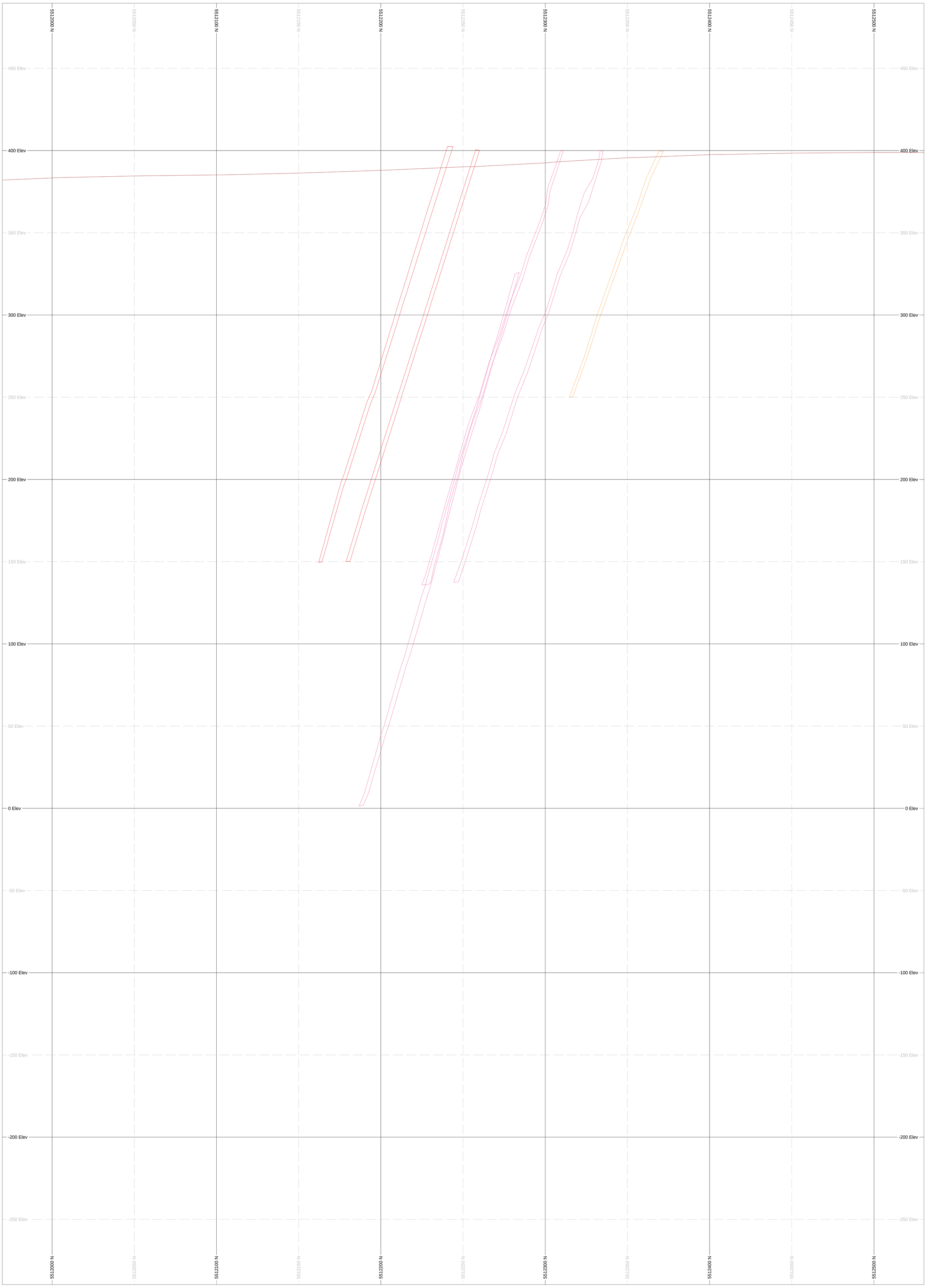

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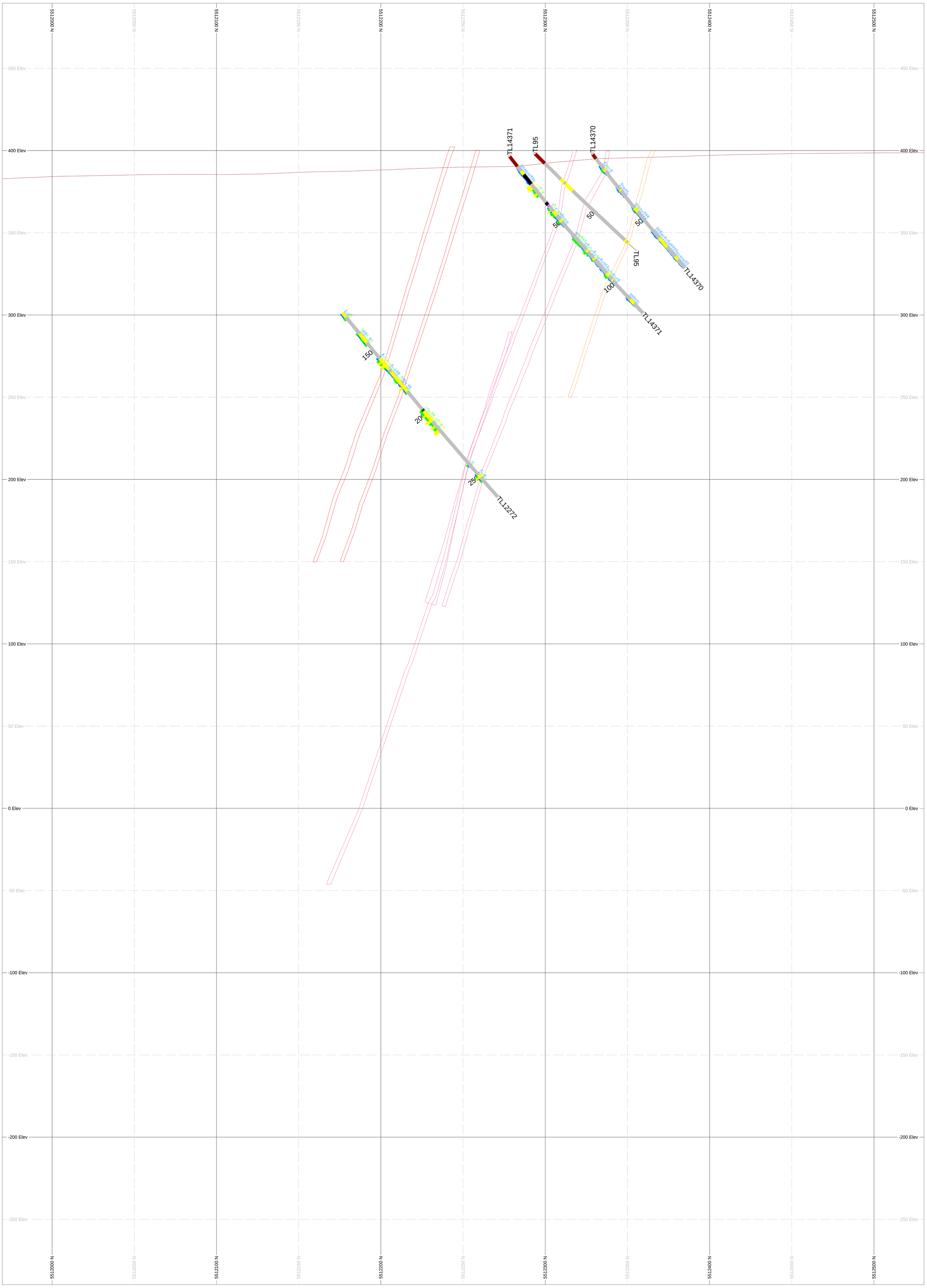

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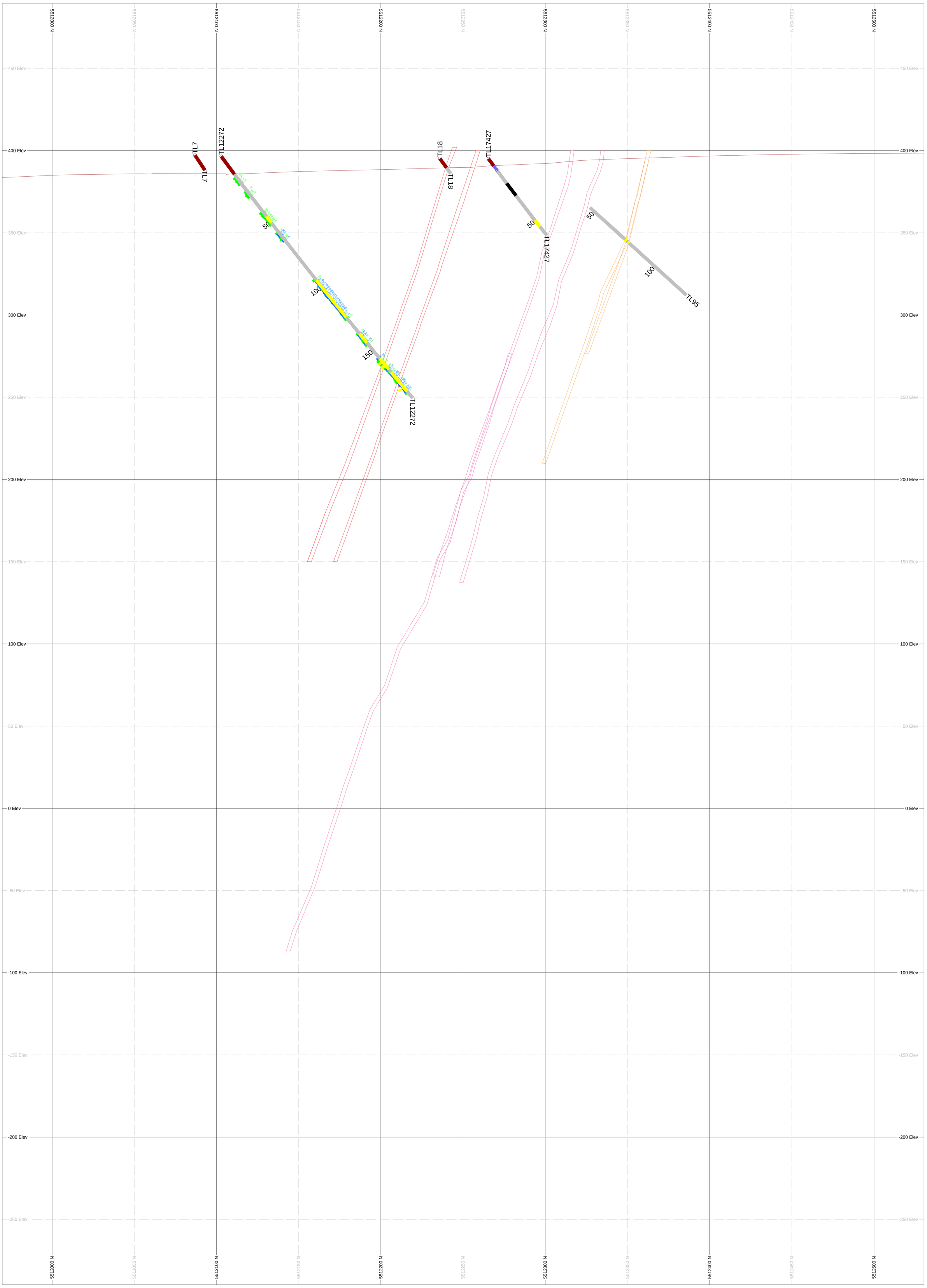

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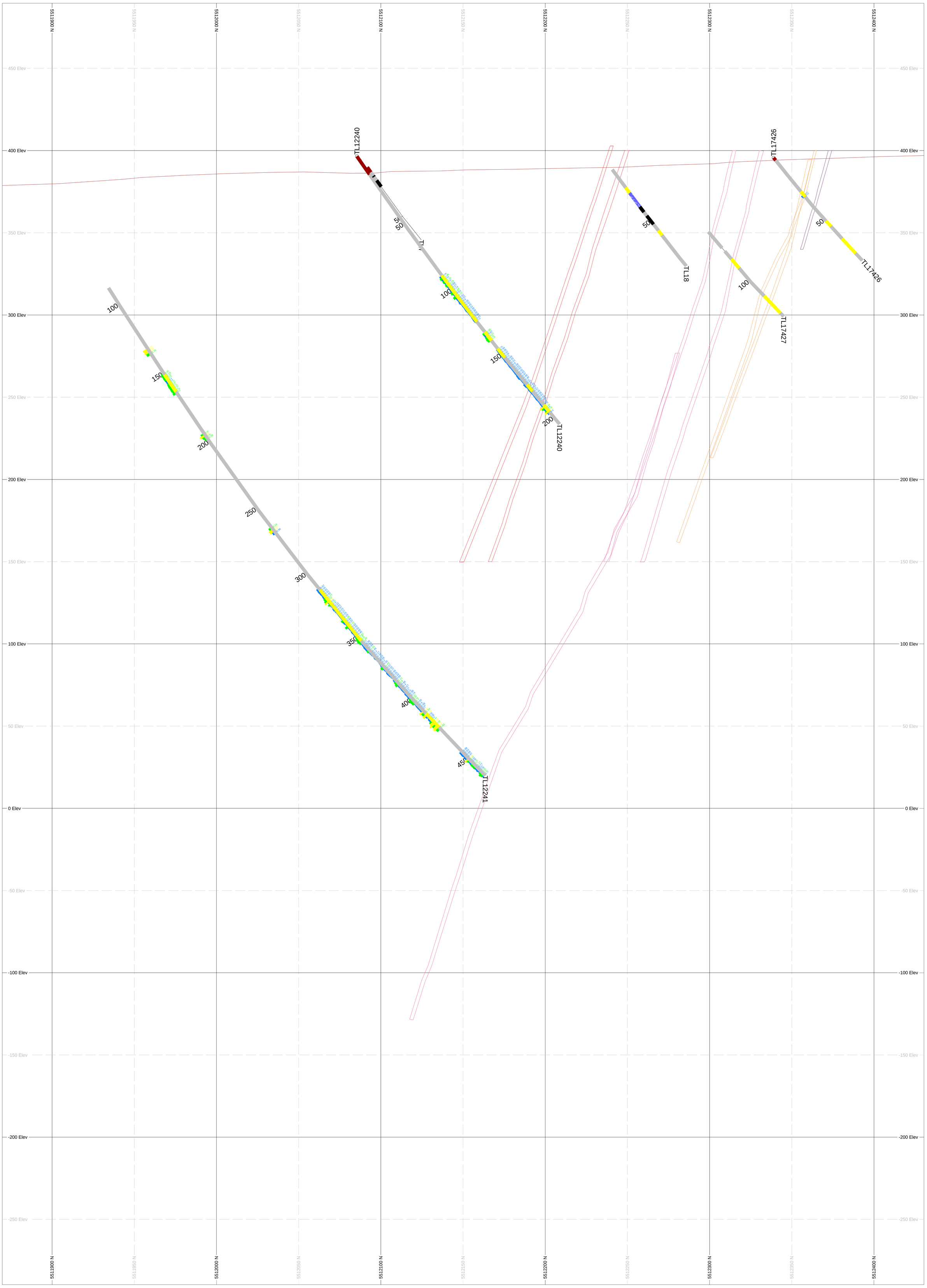

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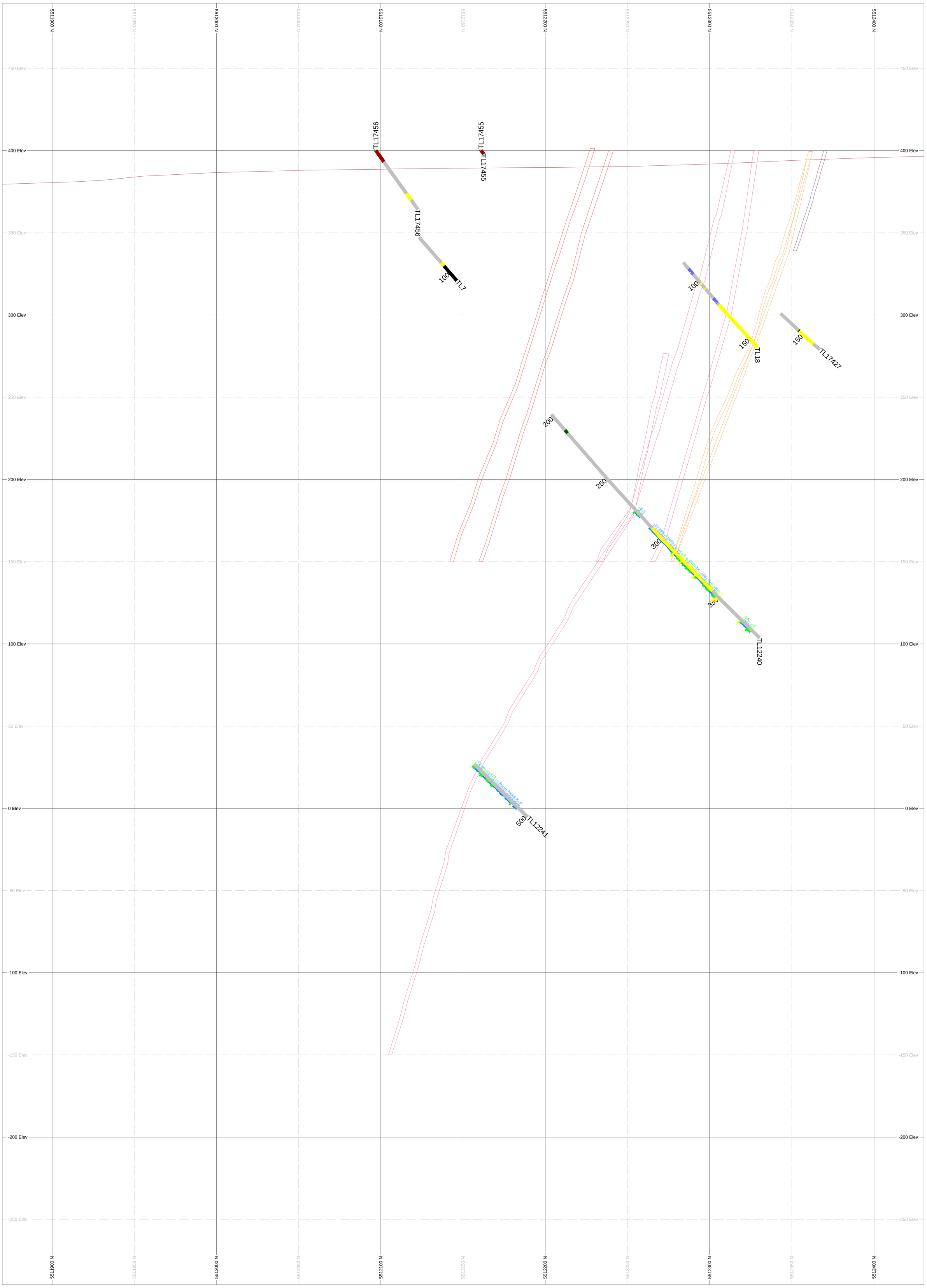

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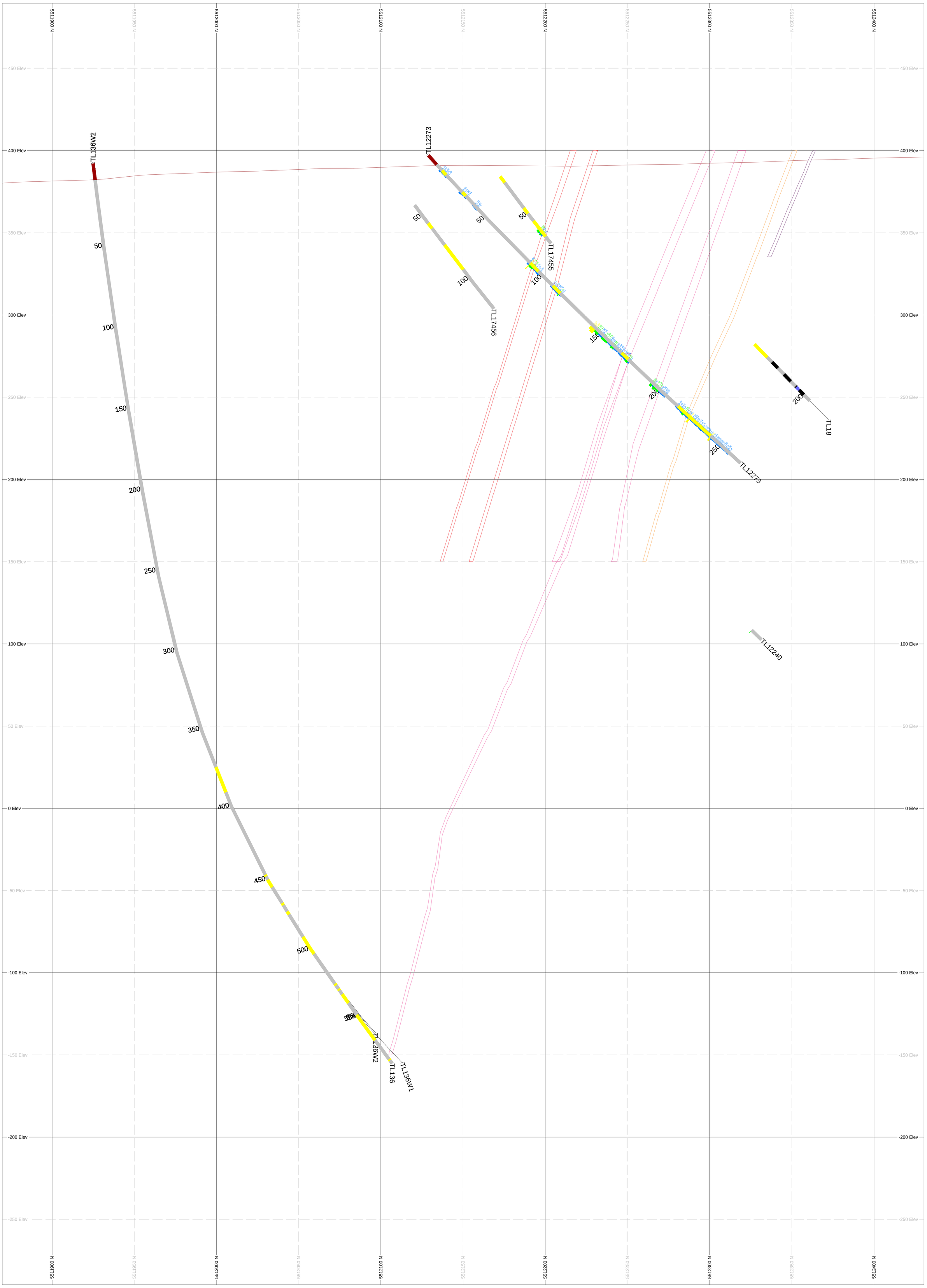

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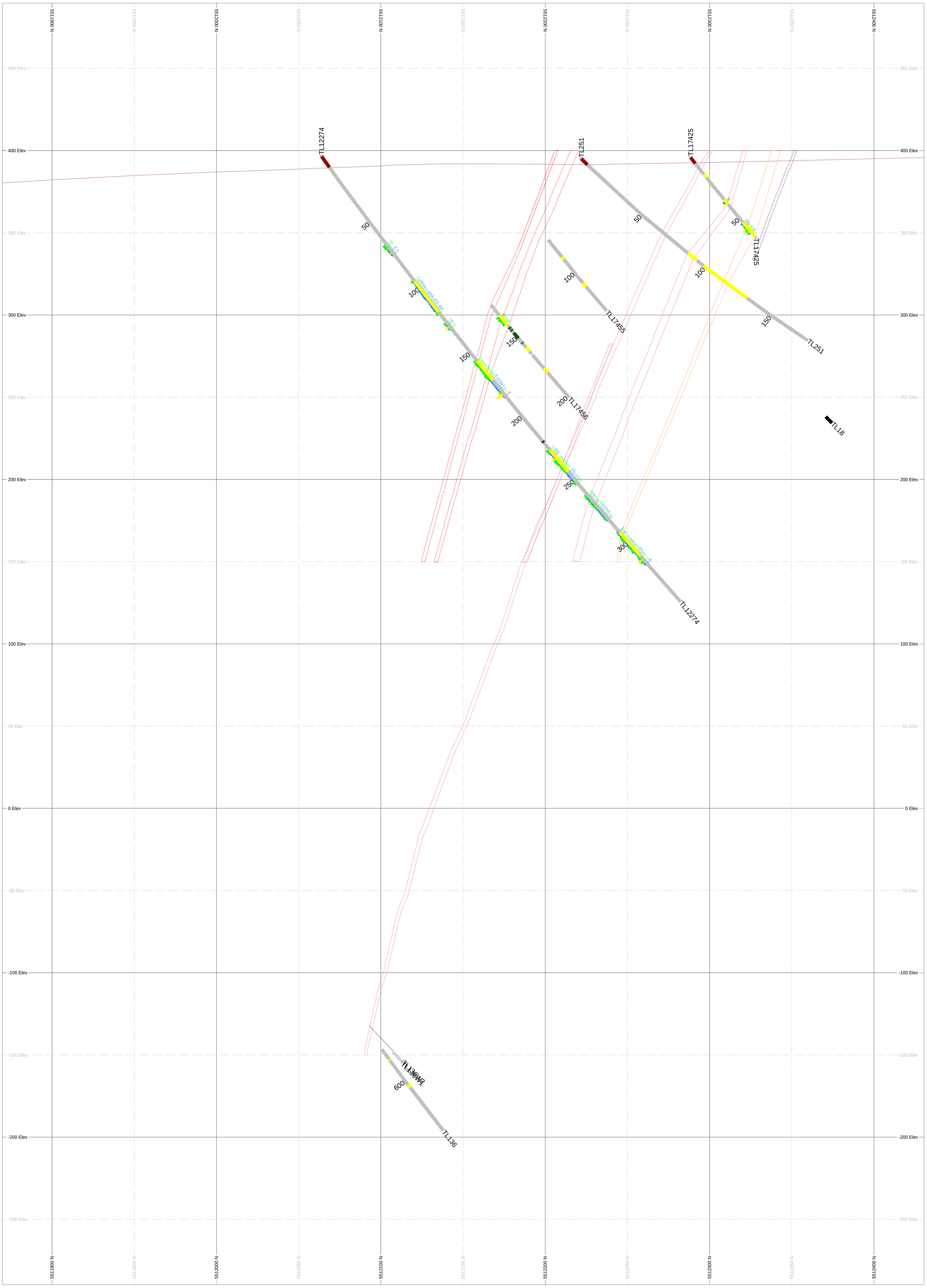

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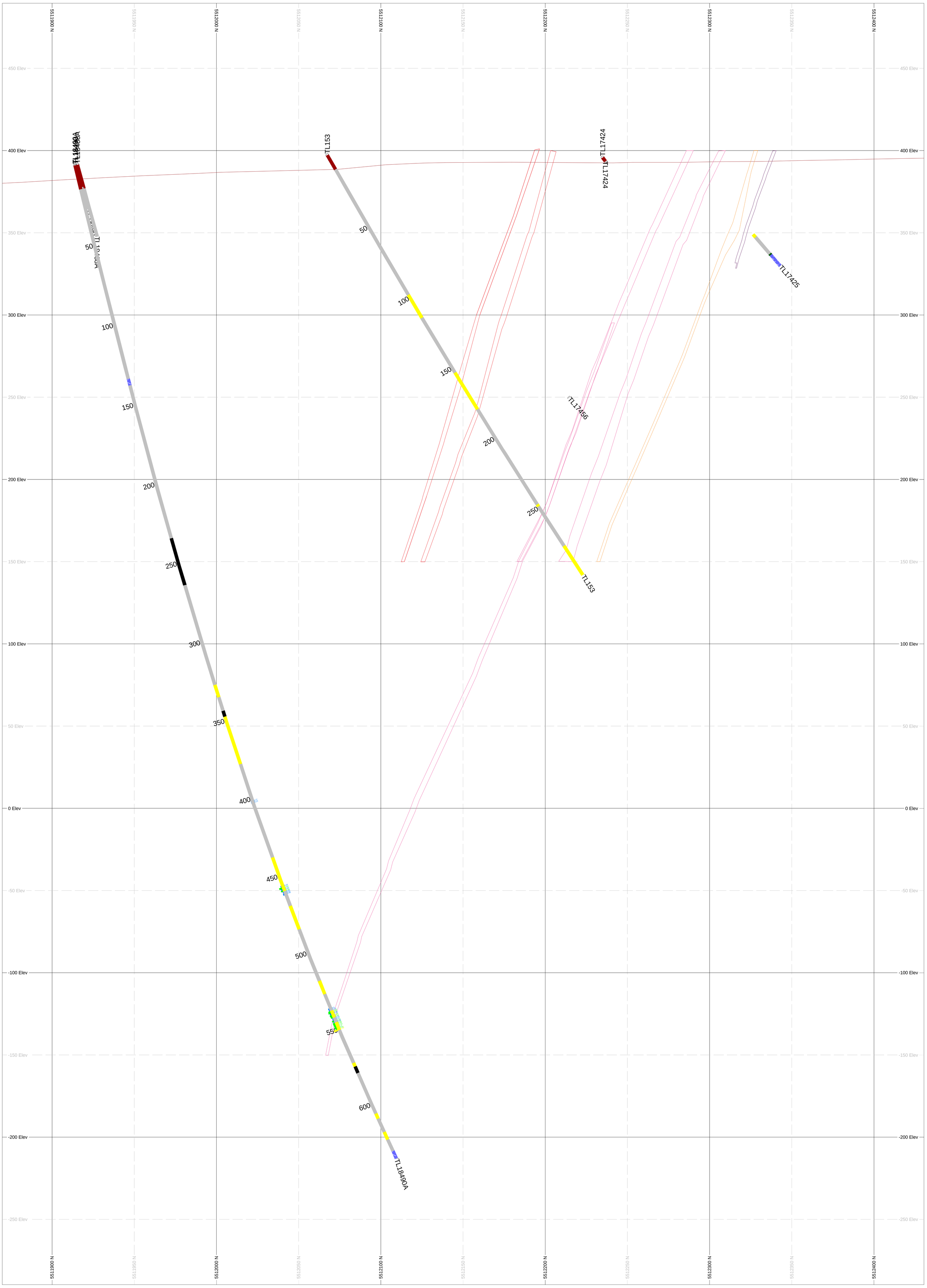

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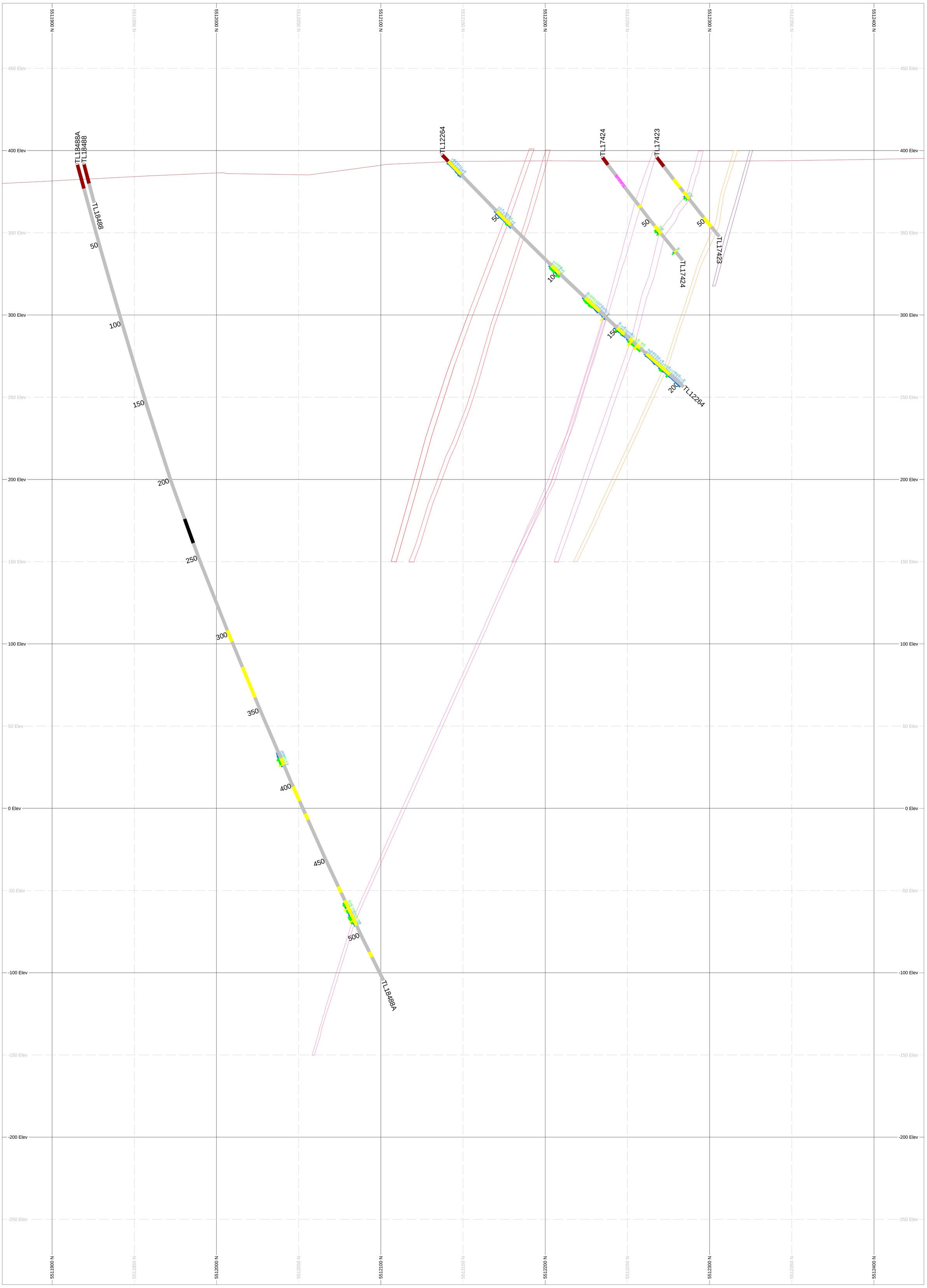
528625	1:1000
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

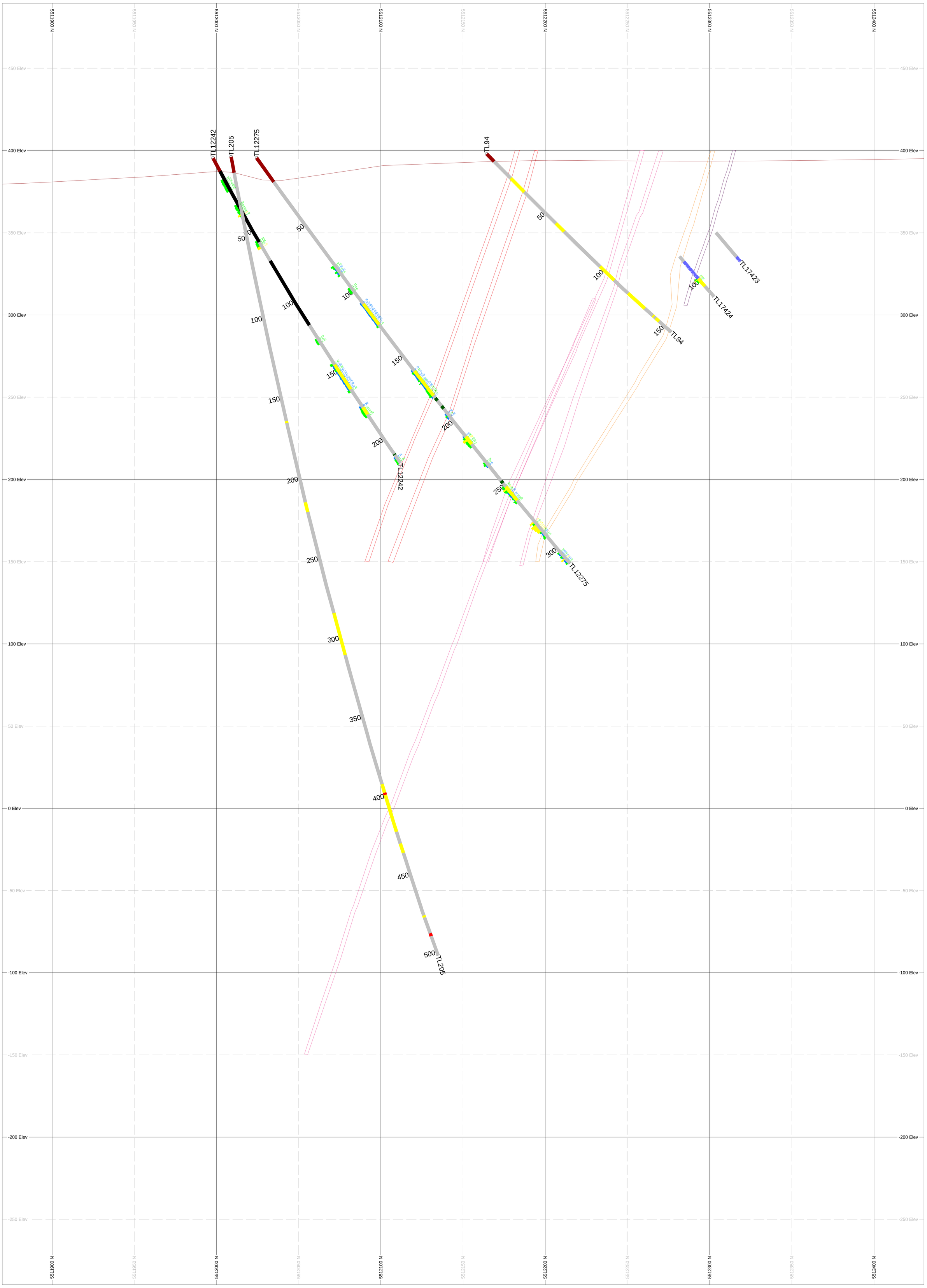
- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
- BS (Biotite Schist)
- D (Dyke)
- MD (Mafic Dyke)
- MSED (Metasediments)
- MSS (Muscovite Sericite Schist)
- MTVOL (Metavolcanics)
- OB (Overburden)
- QFP (Quartz Feldspar Porphyry)
- QP (Quartz Porphyry)
- FZ (Fault Zone)

TREASURY METALS Inc.

Goliath Gold Project	
528600	1:1000
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

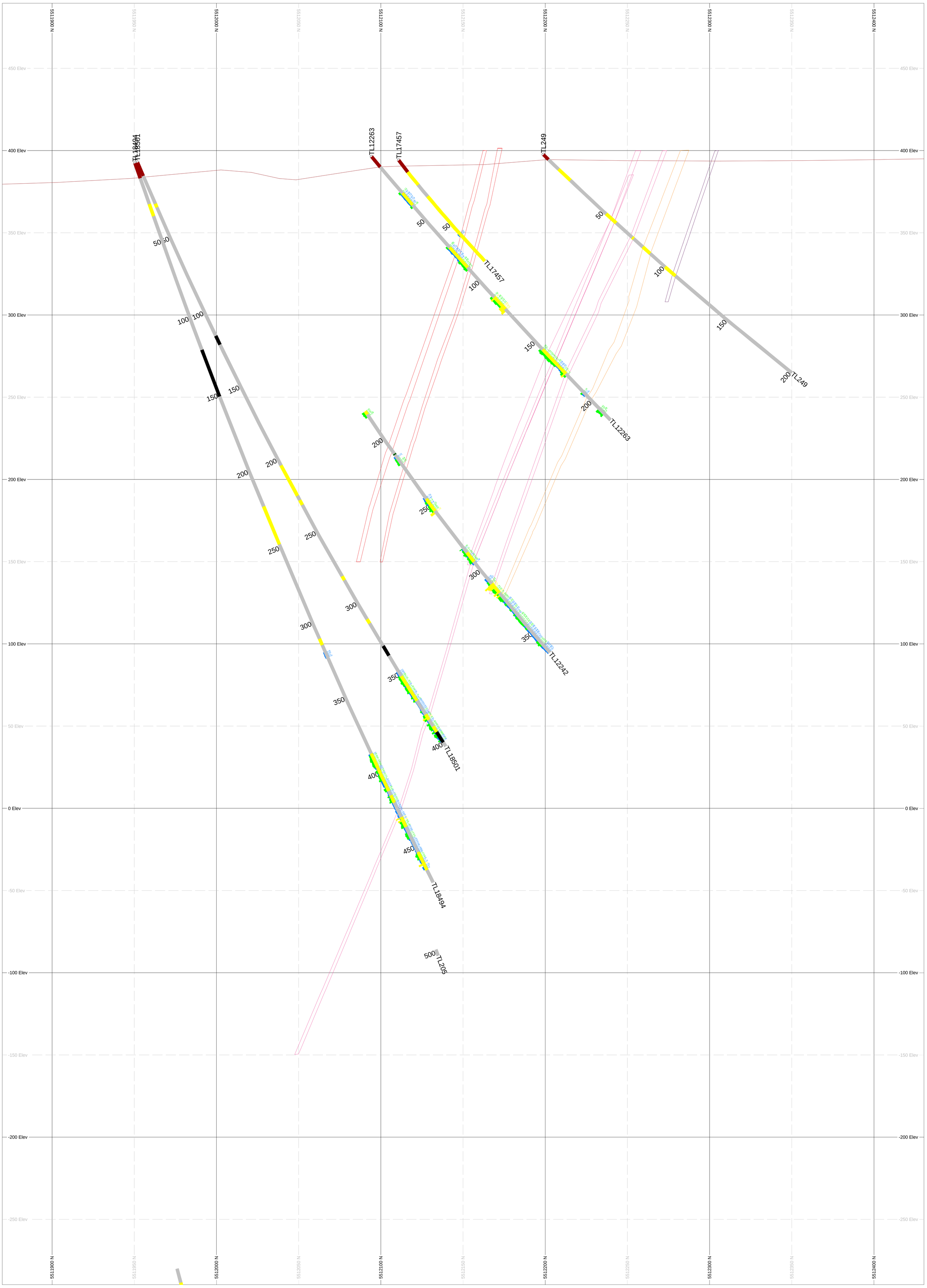
- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
- BS (Biotite Schist)
- D (Dyke)
- MD (Mafic Dyke)
- MSED (Metasediments)
- MSS (Muscovite Sericite Schist)
- MTVOL (Metavolcanics)
- OB (Overburden)
- QFP (Quartz Feldspar Porphyry)
- QP (Quartz Porphyry)
- FZ (Fault Zone)

TREASURY METALS Inc.

Goliath Gold Project	
528575	1:1000
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

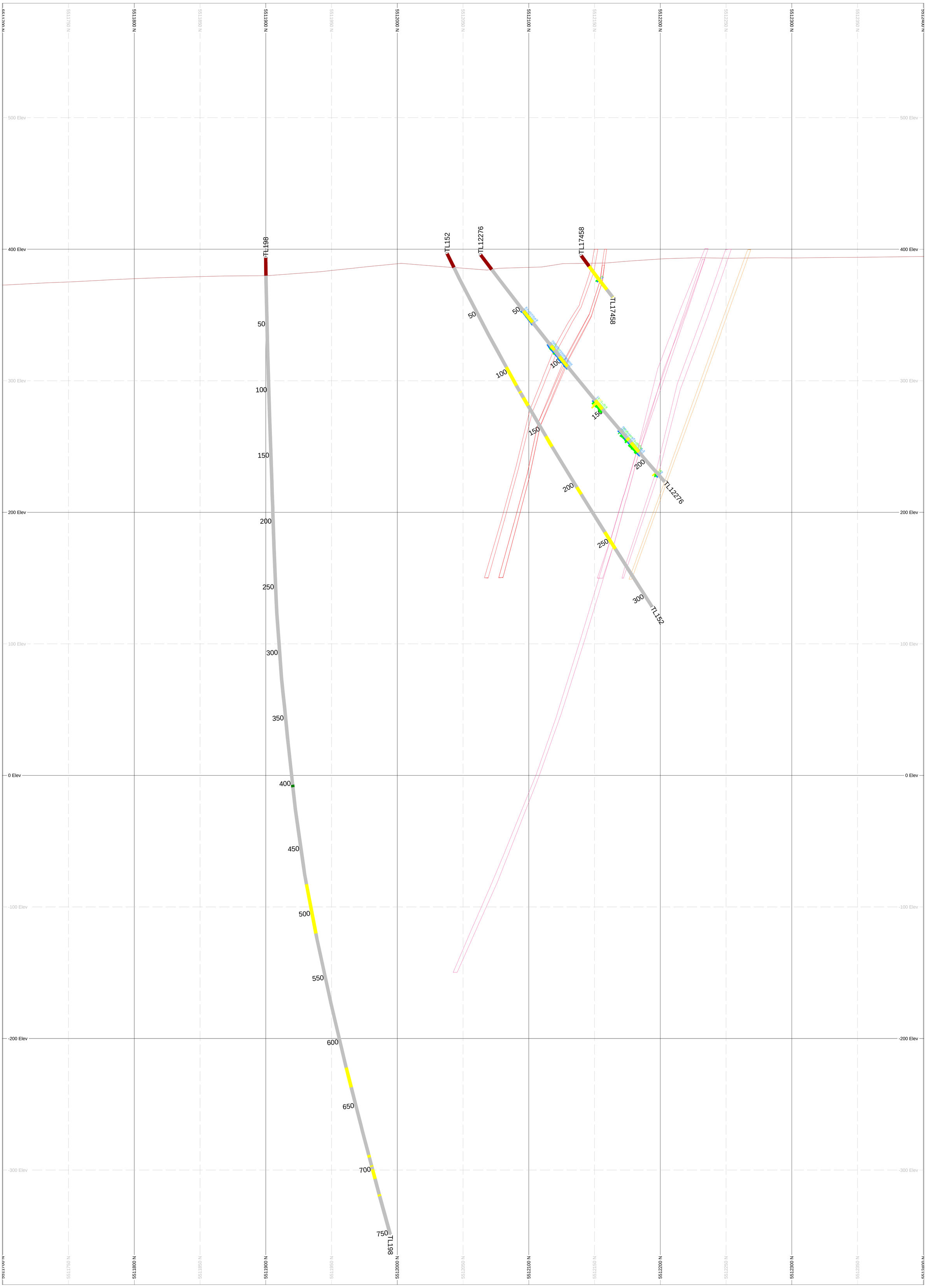
- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
- BS (Biotite Schist)
- D (Dyke)
- MD (Mafic Dyke)
- MSED (Metasediments)
- MSS (Muscovite Sericite Schist)
- MTVOL (Metavolcanics)
- OB (Overburden)
- QFP (Quartz Feldspar Porphyry)
- QP (Quartz Porphyry)
- FZ (Fault Zone)

TREASURY METALS Inc.

Goliath Gold Project	
528550	1:1000
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

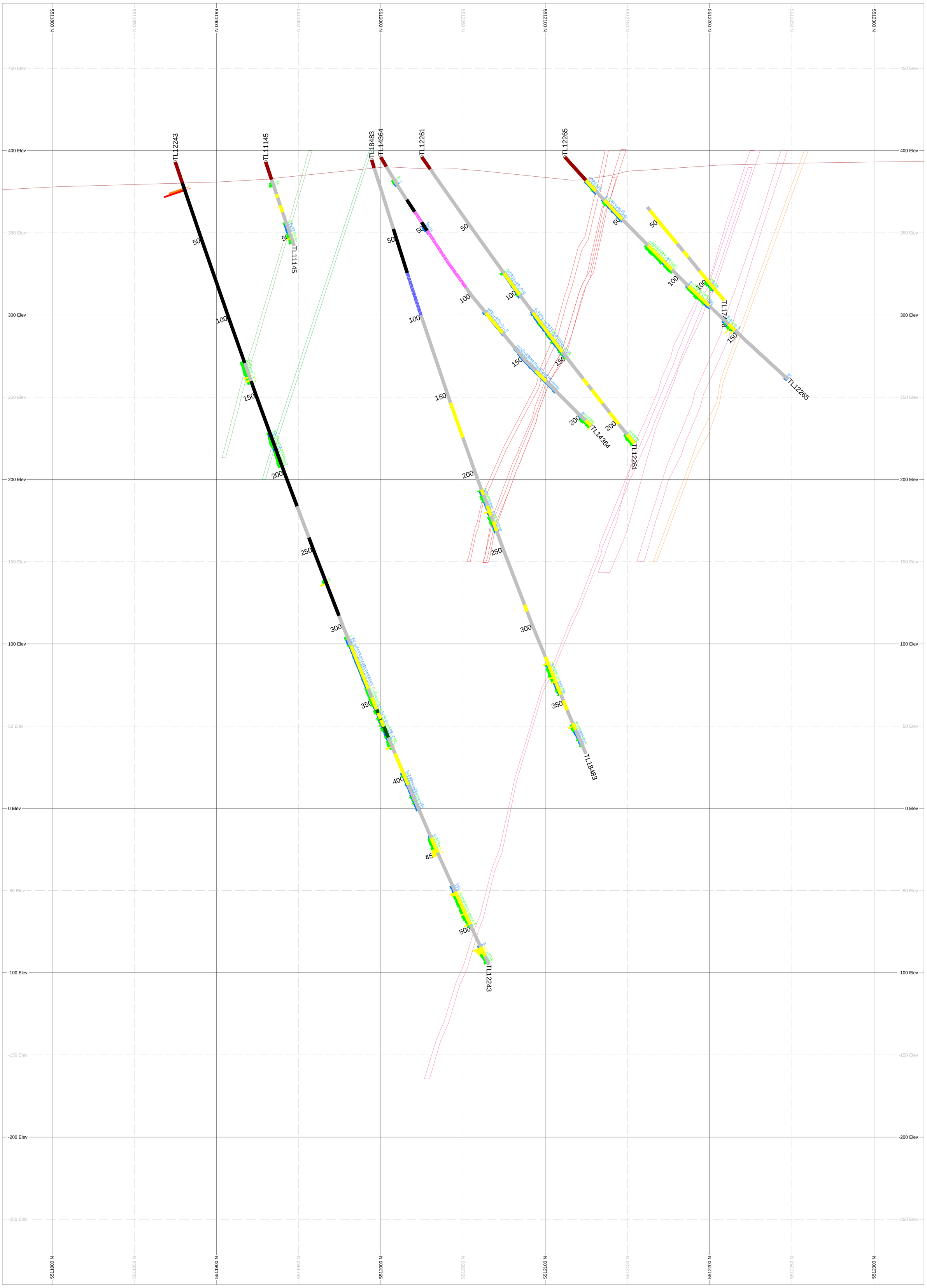
- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
- BS (Biotite Schist)
- D (Dyke)
- MD (Mafic Dyke)
- MSED (Metasediments)
- MSS (Muscovite Sericite Schist)
- MTVOL (Metavolcanics)
- OB (Overburden)
- QFP (Quartz Feldspar Porphyry)
- QP (Quartz Porphyry)
- FZ (Fault Zone)

TREASURY METALS Inc.

Goliath Gold Project	
528525	1:1250
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

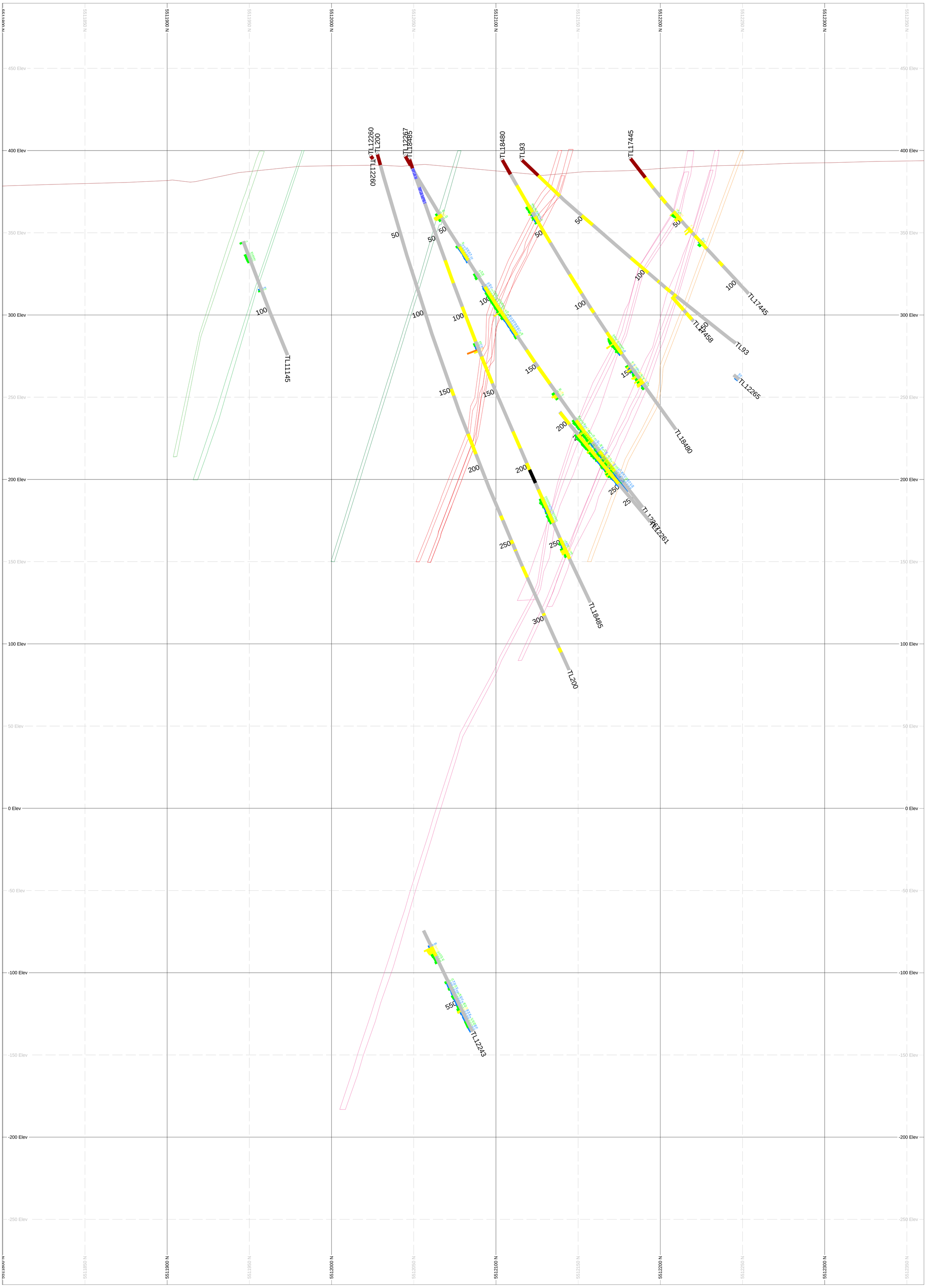
- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
- BS (Biotite Schist)
- D (Dyke)
- MD (Mafic Dyke)
- MSED (Metasediments)
- MSS (Muscovite Sericite Schist)
- MTVOL (Metavolcanics)
- OB (Overburden)
- QFP (Quartz Feldspar Porphyry)
- QP (Quartz Porphyry)
- FZ (Fault Zone)

TREASURY METALS Inc.

Goliath Gold Project	
528500	1:1000
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

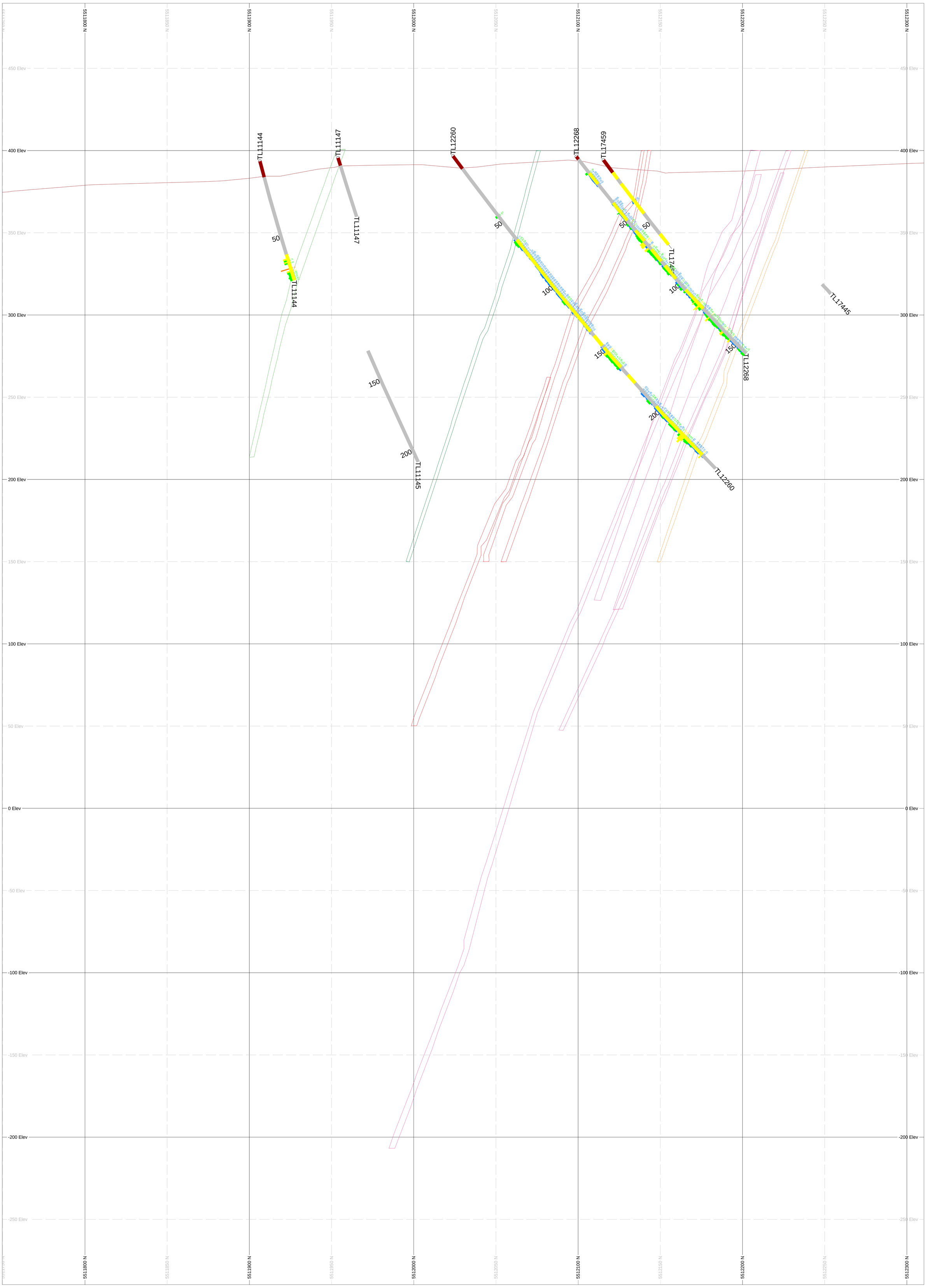
- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
- D (Dyke)
- MSED (Metasediments)
- MTVOL (Metavolcanics)
- QFP (Quartz Feldspar Porphyry)
- FZ (Fault Zone)
- BS (Biotite Schist)
- MD (Mafic Dyke)
- MSS (Muscovite Sericite Schist)
- OB (Overburden)
- QP (Quartz Porphyry)

TREASURY METALS Inc.

Goliath Gold Project	
528475	1:1000
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

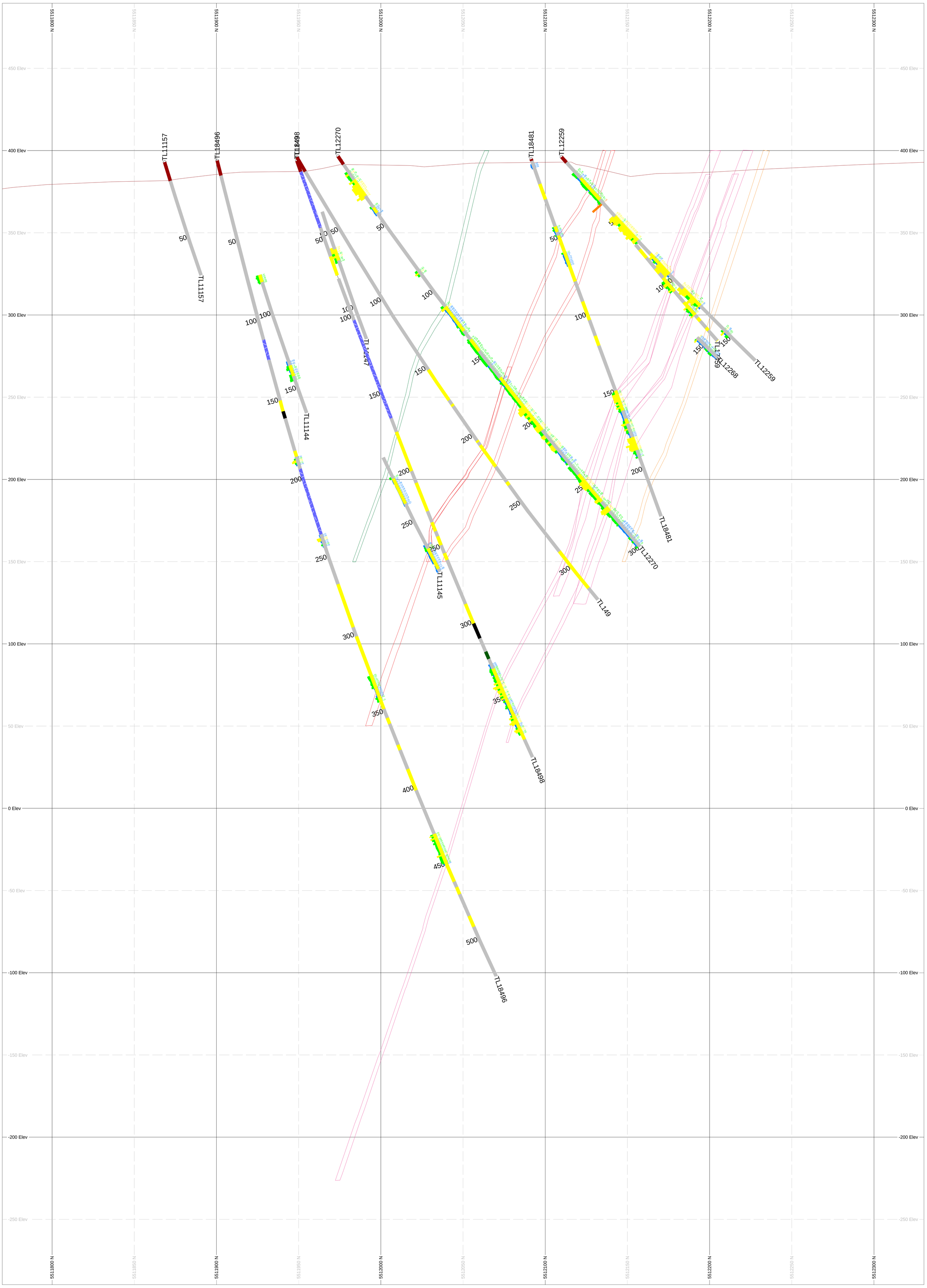
- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
- BS (Biotite Schist)
- D (Dyke)
- MD (Mafic Dyke)
- MSED (Metasediments)
- MSS (Muscovite Sericite Schist)
- MTVOL (Metavolcanics)
- OB (Overburden)
- QFP (Quartz Feldspar Porphyry)
- QP (Quartz Porphyry)
- FZ (Fault Zone)

TREASURY METALS Inc.

Goliath Gold Project	
528450	1:1000
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

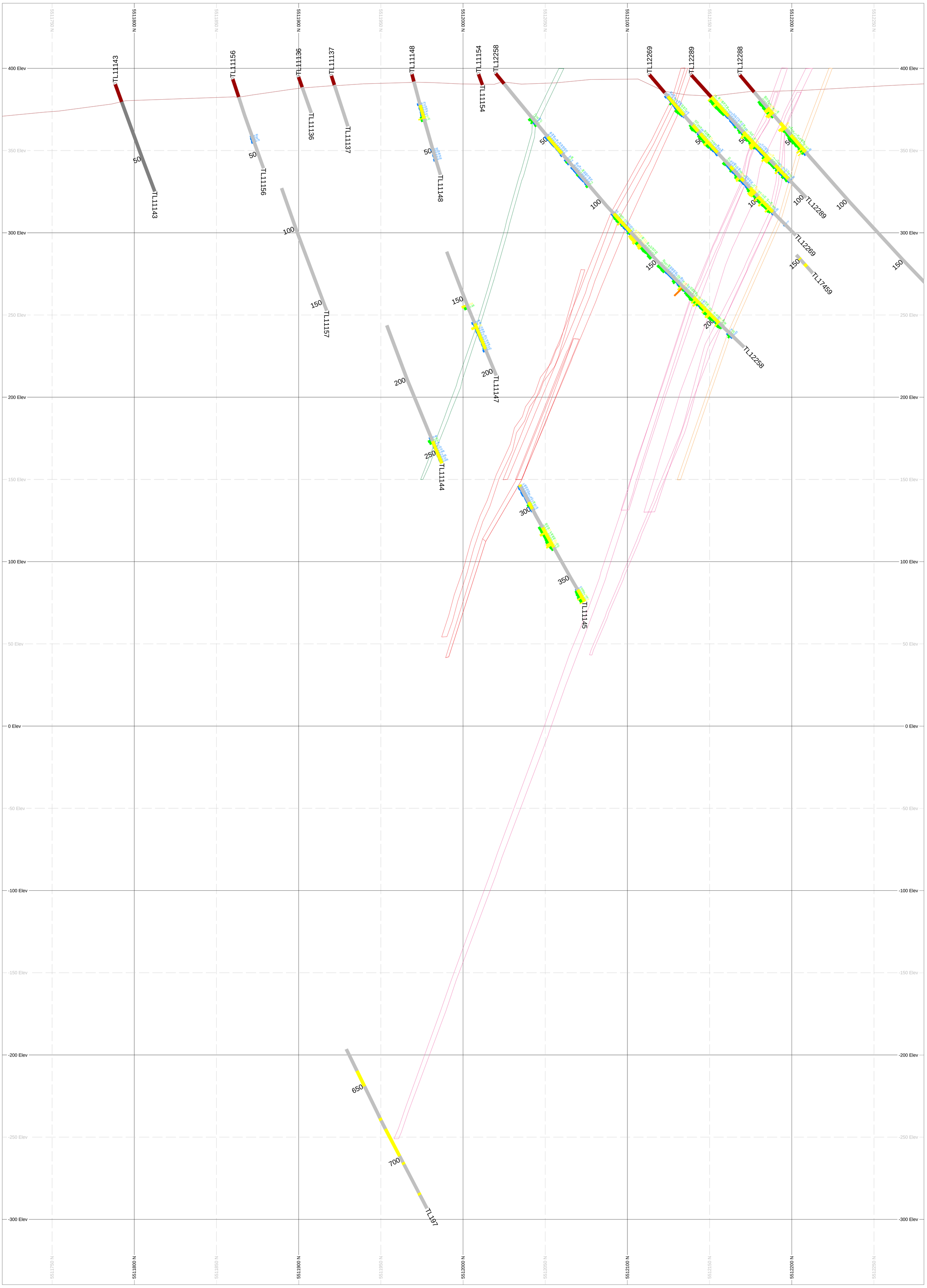
- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
- BS (Biotite Schist)
- D (Dyke)
- MD (Mafic Dyke)
- MSED (Metasediments)
- MSS (Muscovite Sericite Schist)
- MTVOL (Metavolcanics)
- OB (Overburden)
- QFP (Quartz Feldspar Porphyry)
- QP (Quartz Porphyry)
- FZ (Fault Zone)

TREASURY METALS Inc.

Goliath Gold Project	
528425	1:1000
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

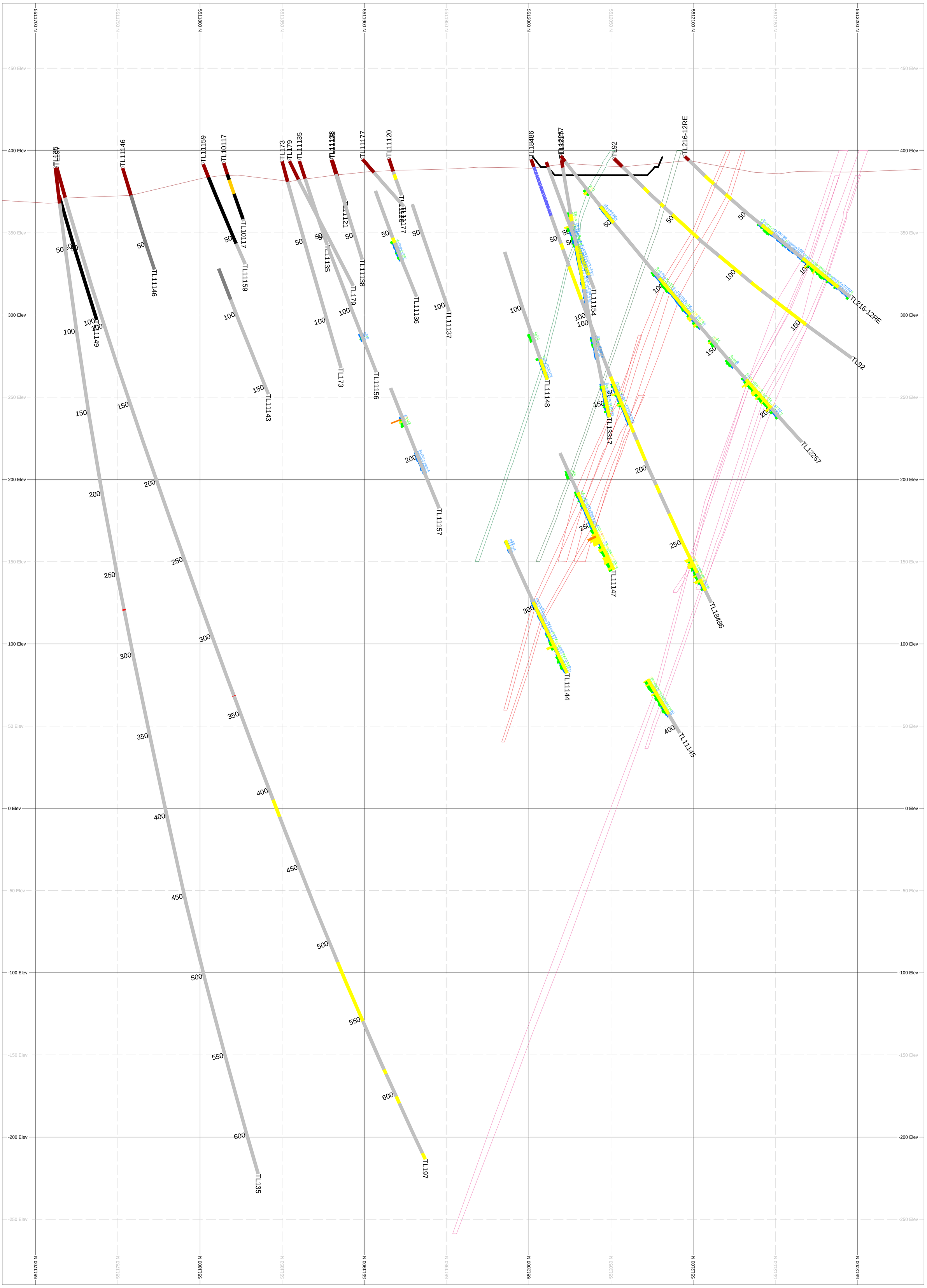
- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
- D (Dyke)
- MSED (Metasediments)
- MTVOL (Metavolcanics)
- QFP (Quartz Feldspar Porphyry)
- FZ (Fault Zone)
- BS (Biotite Schist)
- MD (Mafic Dyke)
- MSS (Muscovite Sericite Schist)
- OB (Overburden)
- QP (Quartz Porphyry)

TREASURY METALS Inc.

Goliath Gold Project	
528400	1:1000
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

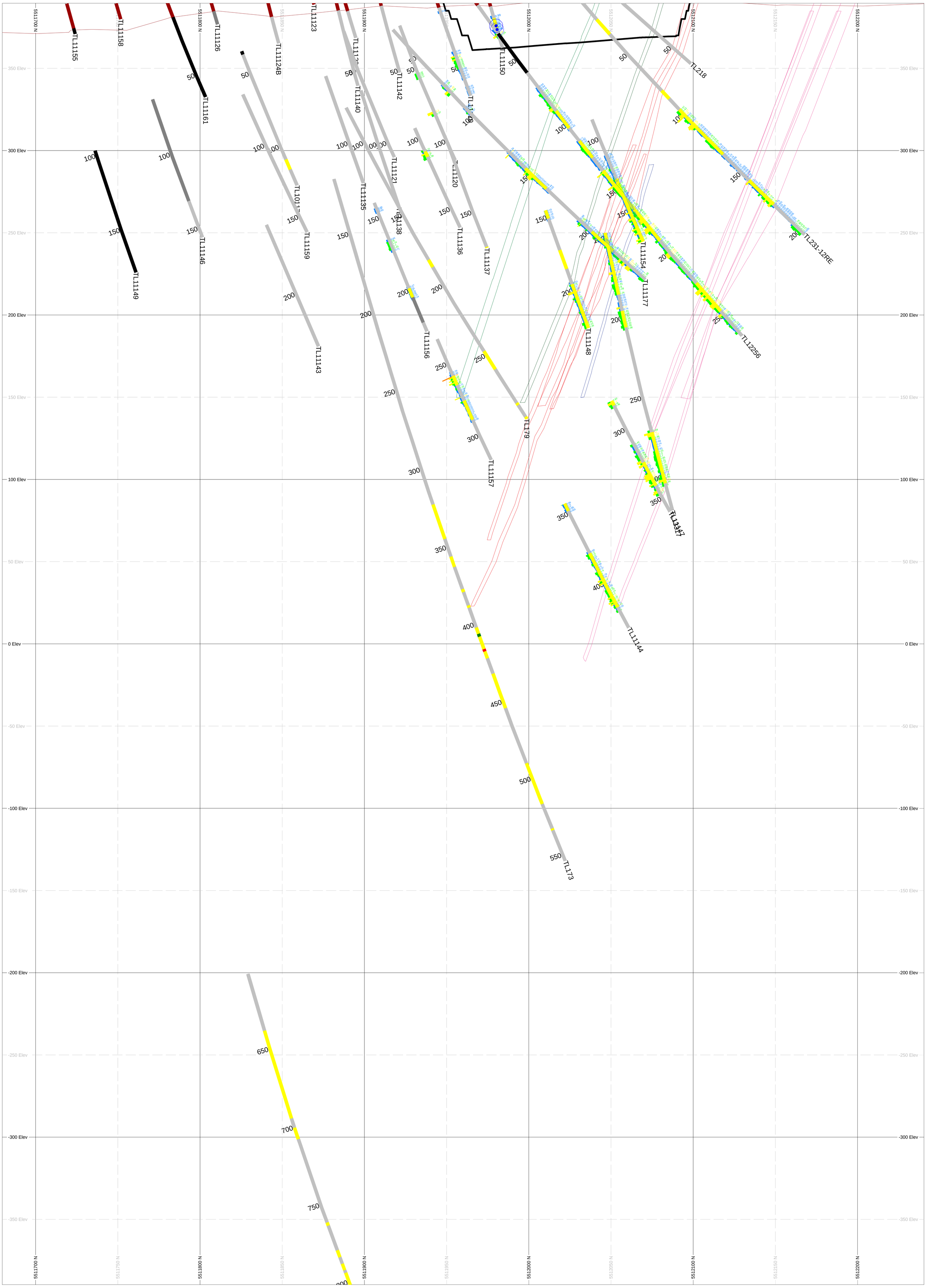
- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
- BS (Biotite Schist)
- D (Dyke)
- MD (Mafic Dyke)
- MSED (Metasediments)
- MSS (Muscovite Sericite Schist)
- MTVOL (Metavolcanics)
- OB (Overburden)
- QFP (Quartz Feldspar Porphyry)
- QP (Quartz Porphyry)
- FZ (Fault Zone)

TREASURY METALS Inc.

Goliath Gold Project	
528375	1:1000
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

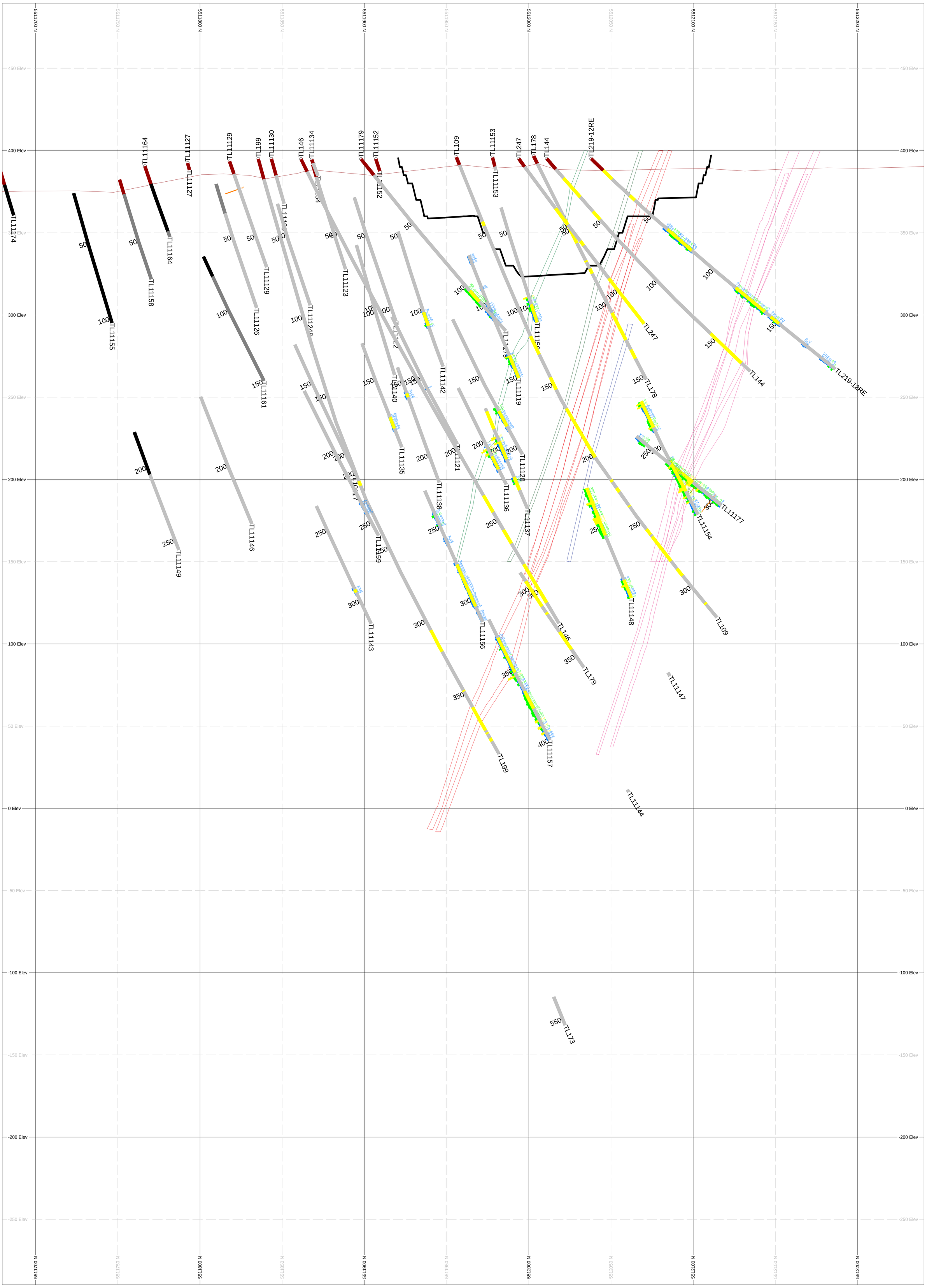
- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
- BS (Biotite Schist)
- D (Dyke)
- MD (Mafic Dyke)
- MSED (Metasediments)
- MSS (Muscovite Sericite Schist)
- MTVOL (Metavolcanics)
- OB (Overburden)
- QFP (Quartz Feldspar Porphyry)
- QP (Quartz Porphyry)
- FZ (Fault Zone)

TREASURY METALS Inc.

Goliath Gold Project	
528350	1:1000
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

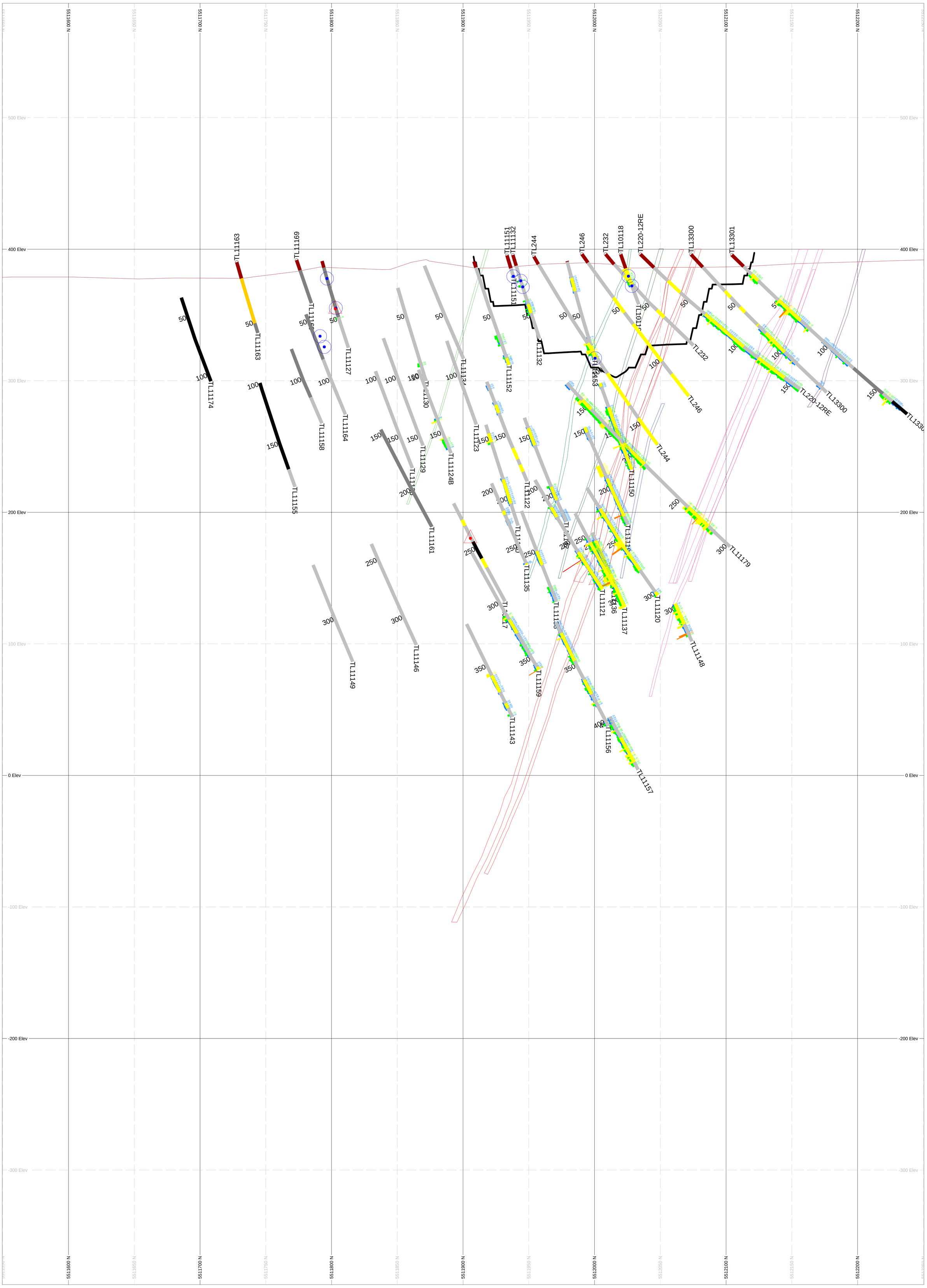
- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
- BS (Biotite Schist)
- D (Dyke)
- MD (Mafic Dyke)
- MSED (Metasediments)
- MSS (Muscovite Sericite Schist)
- MTVOL (Metavolcanics)
- OB (Overburden)
- QFP (Quartz Feldspar Porphyry)
- QP (Quartz Porphyry)
- FZ (Fault Zone)

TREASURY METALS Inc.

Goliath Gold Project	
528325	1:1000
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

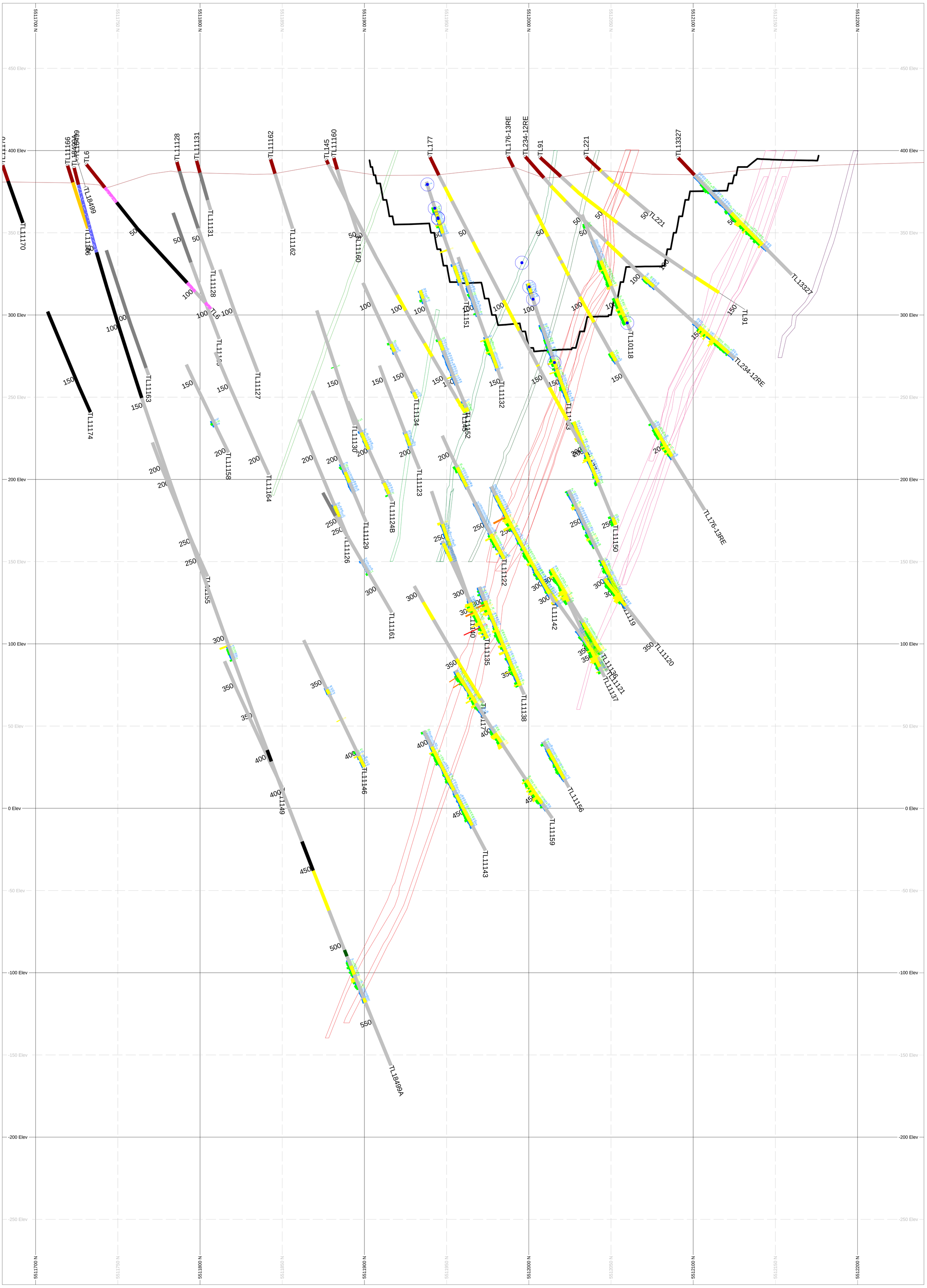
- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
- D (Dyke)
- MSED (Metasediments)
- MTVOL (Metavolcanics)
- QFP (Quartz Feldspar Porphyry)
- FZ (Fault Zone)
- BS (Biotite Schist)
- MD (Mafic Dyke)
- MSS (Muscovite Sericite Schist)
- OB (Overburden)
- QP (Quartz Porphyry)

TREASURY METALS Inc.

Goliath Gold Project	
528300	1:1250
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

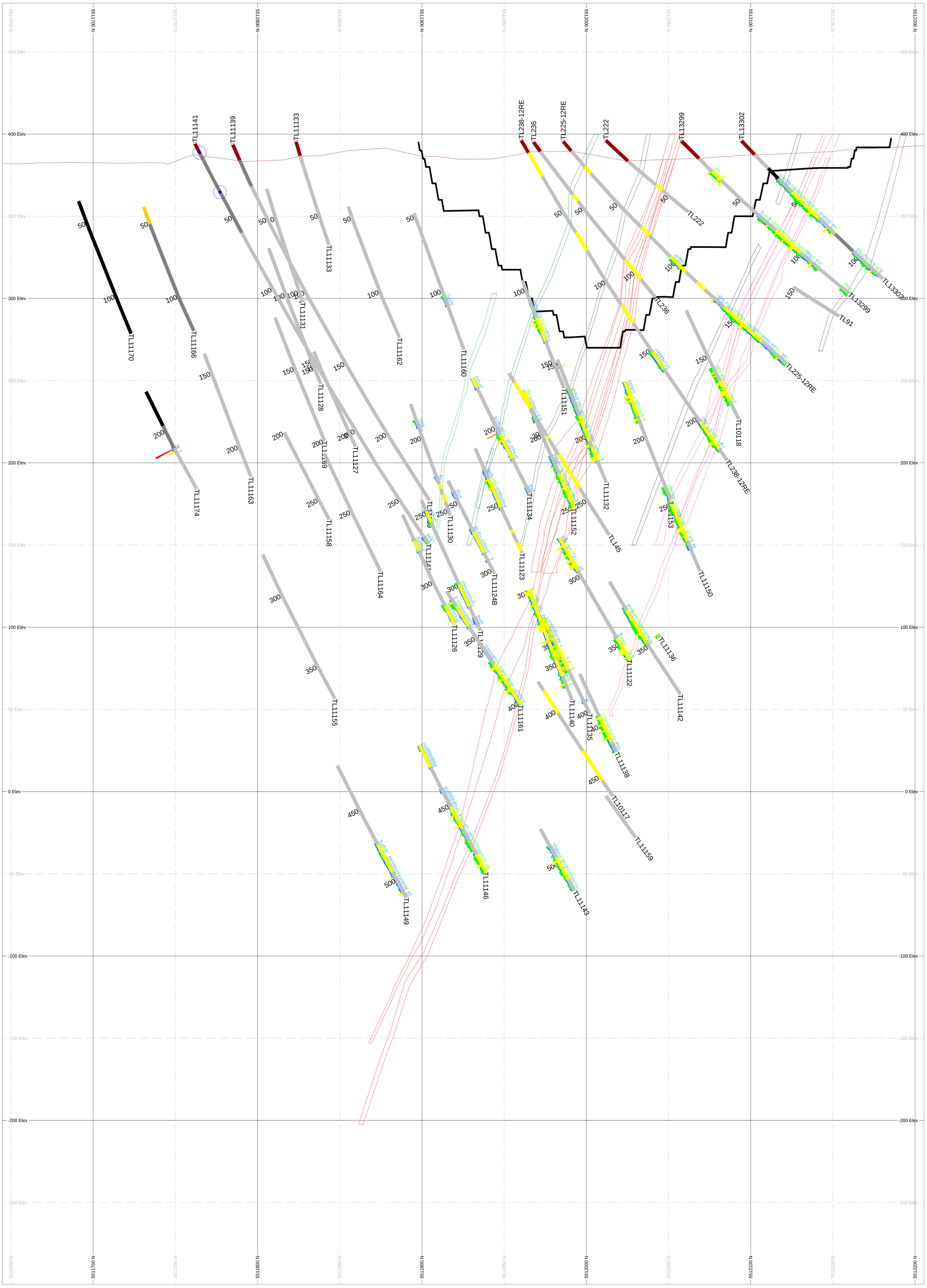
- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
- BS (Biotite Schist)
- D (Dyke)
- MD (Mafic Dyke)
- MSED (Metasediments)
- MSS (Muscovite Sericite Schist)
- MTVOL (Metavolcanics)
- OB (Overburden)
- QFP (Quartz Feldspar Porphyry)
- QP (Quartz Porphyry)
- FZ (Fault Zone)

TREASURY METALS Inc.

Goliath Gold Project	
528275	1:1000
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

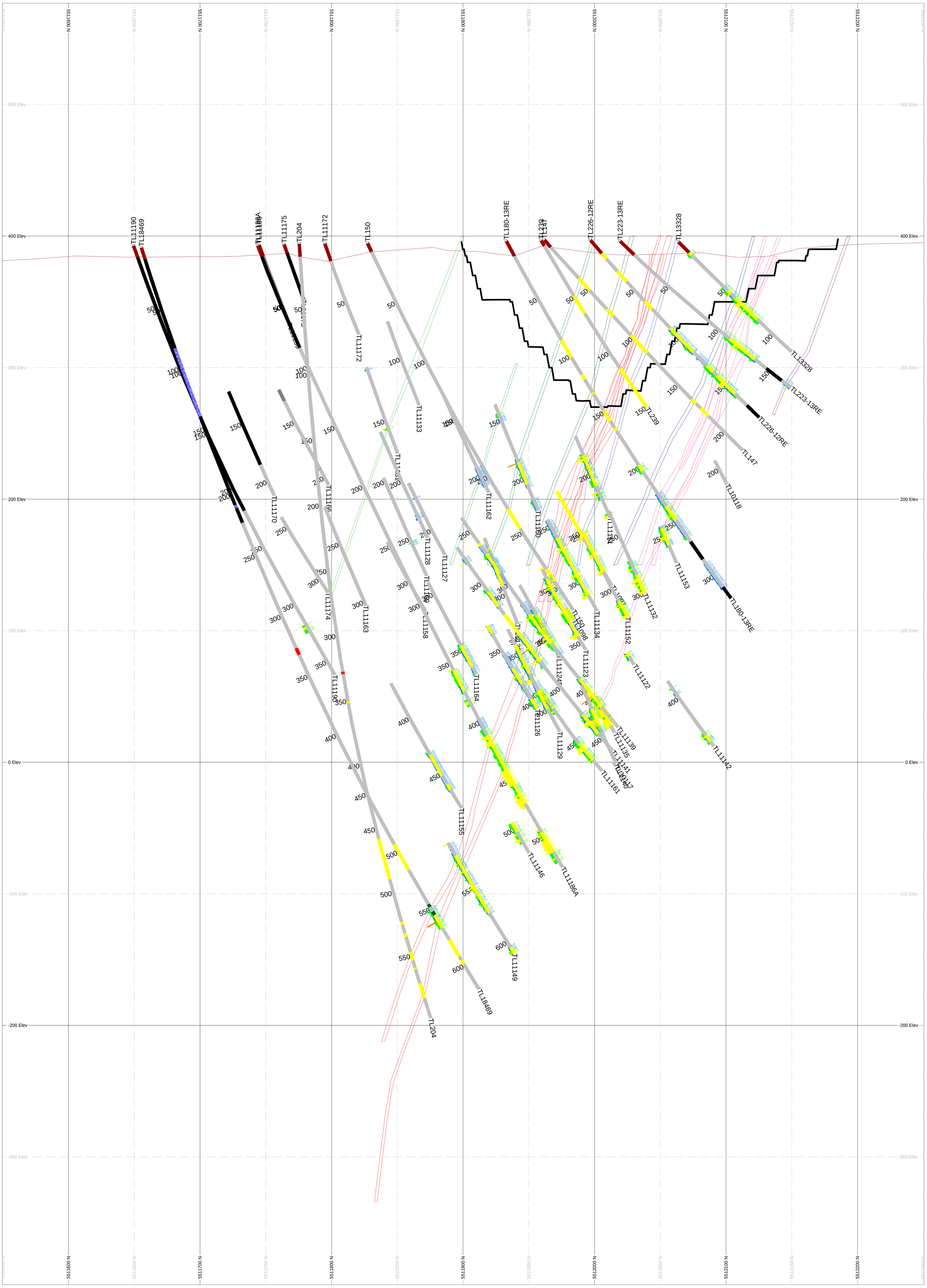
- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
- BS (Biotite Schist)
- D (Dyke)
- MD (Mafic Dyke)
- MSED (Metasediments)
- MSS (Muscovite Sericite Schist)
- MTVOL (Metavolcanics)
- OB (Overburden)
- QFP (Quartz Feldspar Porphyry)
- QP (Quartz Porphyry)
- FZ (Fault Zone)

TREASURY METALS Inc.

Goliath Gold Project	
528250	1:1000
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

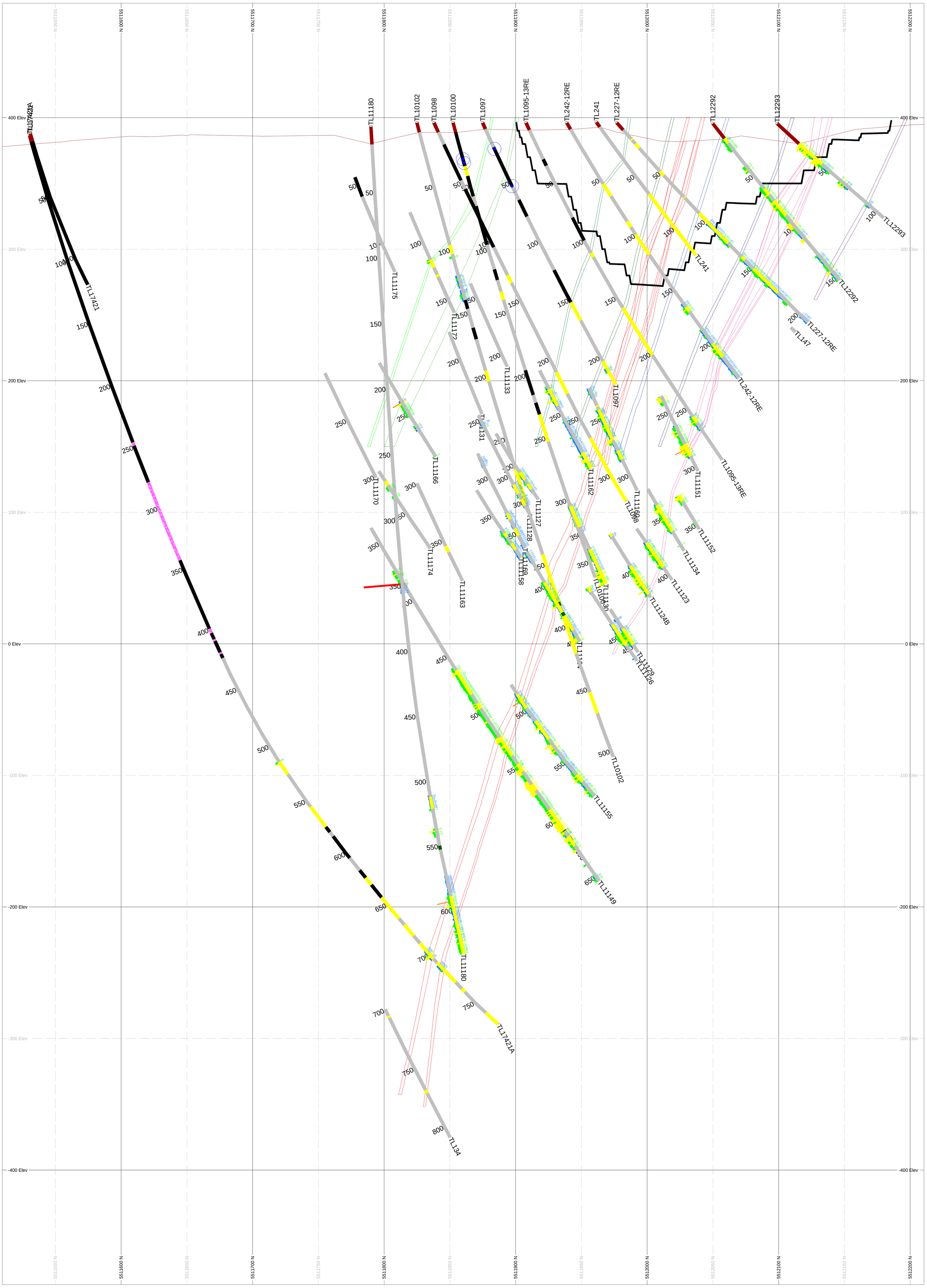
- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
- D (Dyke)
- MSED (Metasediments)
- MTVOL (Metavolcanics)
- QFP (Quartz Feldspar Porphyry)
- FZ (Fault Zone)
- BS (Biotite Schist)
- MD (Mafic Dyke)
- MSS (Muscovite Sericite Schist)
- OB (Overburden)
- QP (Quartz Porphyry)

TREASURY METALS Inc.

Goliath Gold Project	
528225	1:1250
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

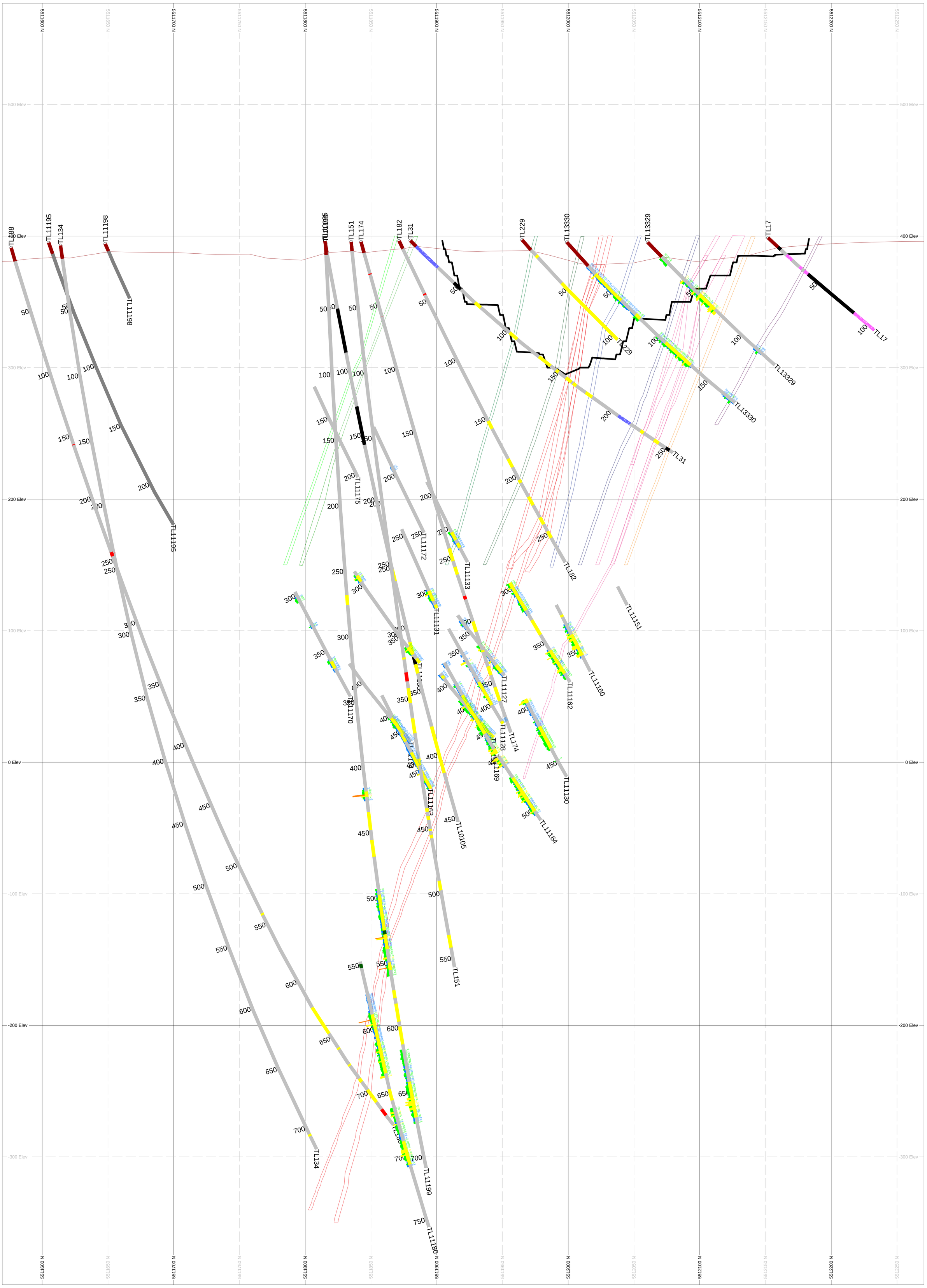
Rock Types

- BMS (Biotite Muscovite Schist)
- BS (Biotite Schist)
- D (Dyke)
- MD (Mafic Dyke)
- MSED (Metasediments)
- MSS (Muscovite Sericite Schist)
- MTVOL (Metavolcanics)
- OB (Overburden)
- QFP (Quartz Feldspar Porphyry)
- QP (Quartz Porphyry)
- FZ (Fault Zone)

TREASURY METALS Inc.

Goliath Gold Project

528200	1:1250
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

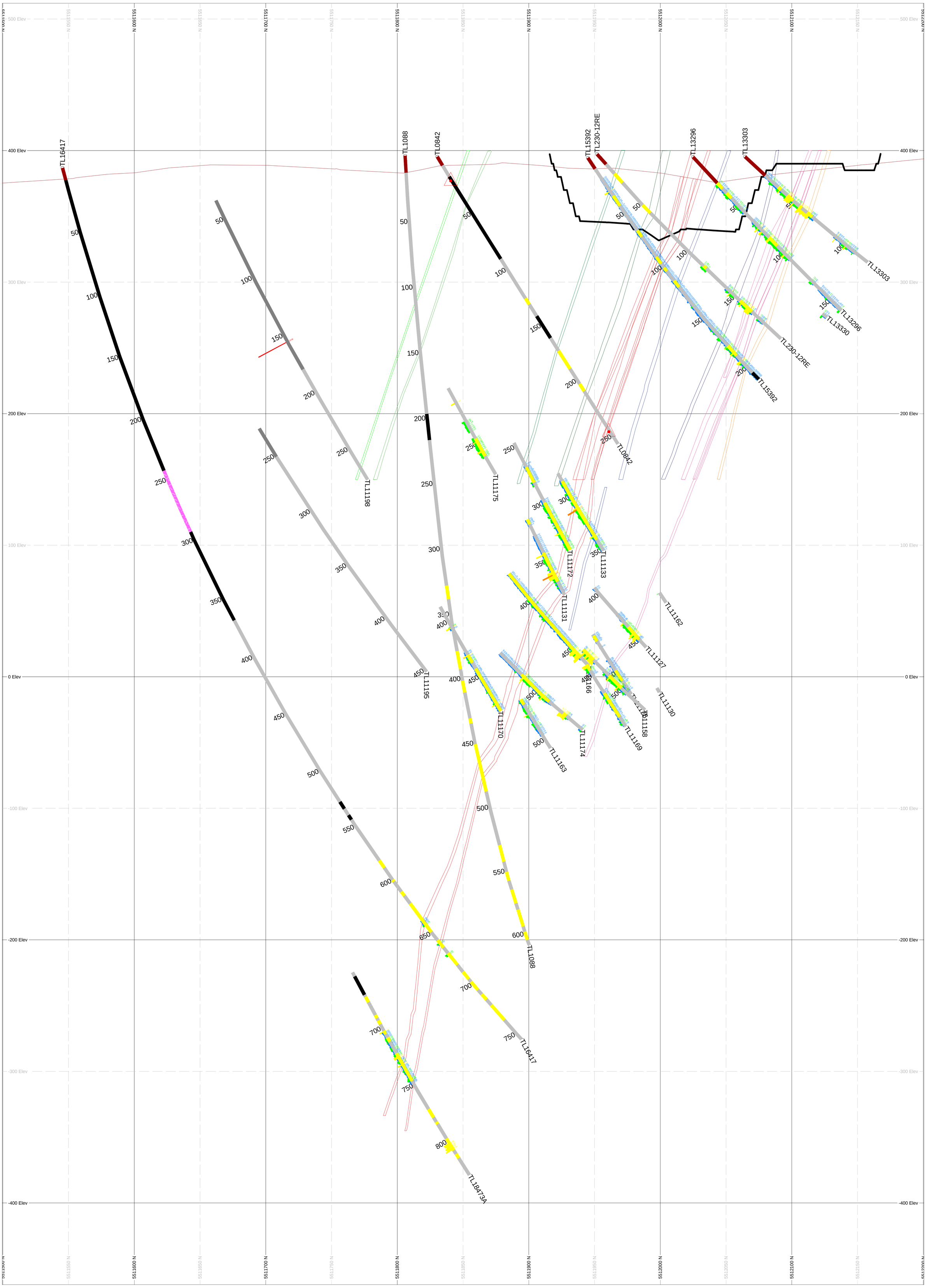
- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
- D (Dyke)
- MSED (Metasediments)
- MTVOL (Metavolcanics)
- QFP (Quartz Feldspar Porphyry)
- FZ (Fault Zone)
- BS (Biotite Schist)
- MD (Mafic Dyke)
- MSS (Muscovite Sericite Schist)
- OB (Overburden)
- QP (Quartz Porphyry)

TREASURY METALS Inc.

Goliath Gold Project	
528175	1:1250
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

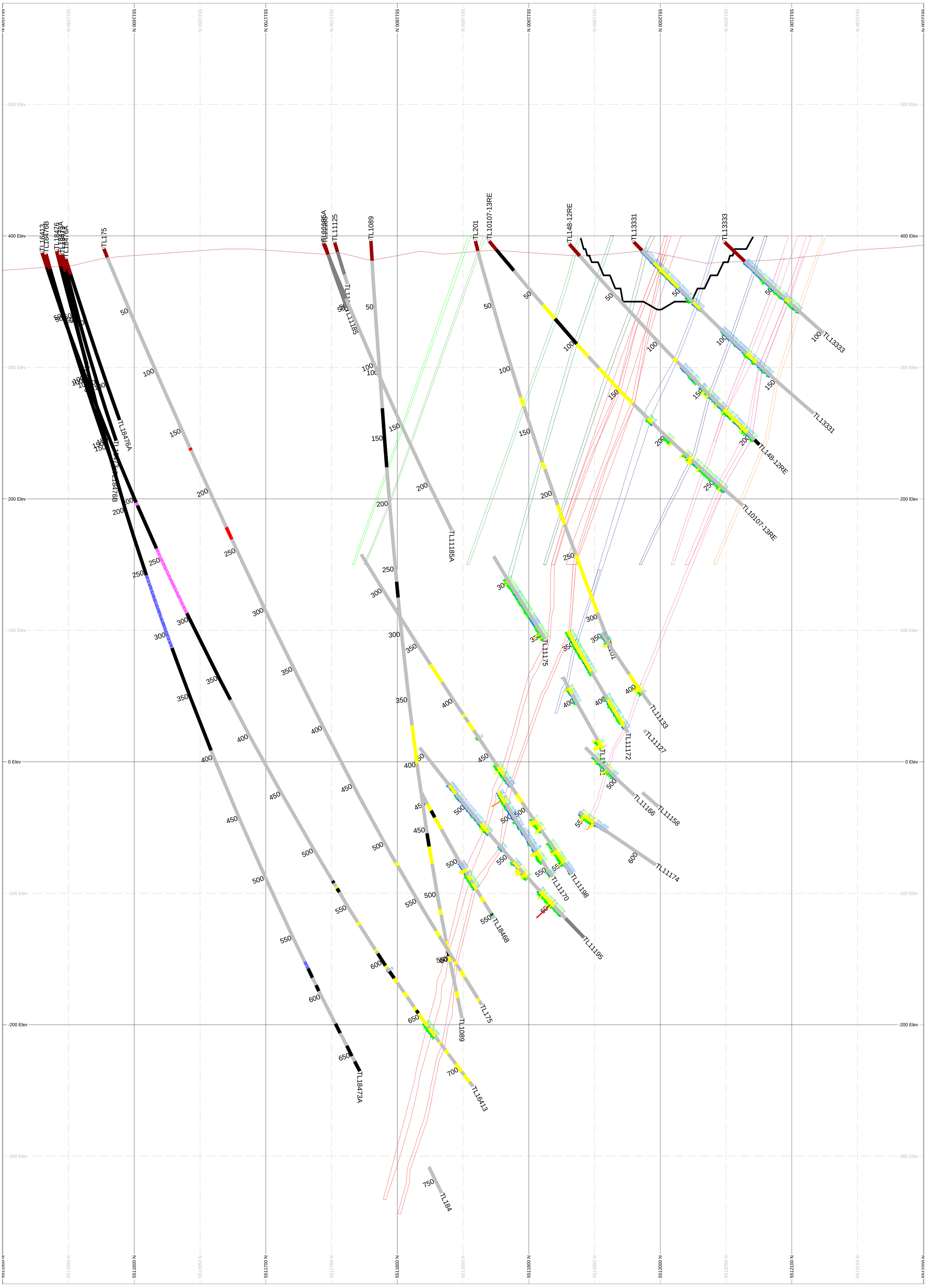
- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
- D (Dyke)
- MSED (Metasediments)
- MTVOL (Metavolcanics)
- QFP (Quartz Feldspar Porphyry)
- FZ (Fault Zone)
- BS (Biotite Schist)
- MD (Mafic Dyke)
- MSS (Muscovite Sericite Schist)
- OB (Overburden)
- QP (Quartz Porphyry)

TREASURY METALS Inc.

Goliath Gold Project	
528150	1:1250
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

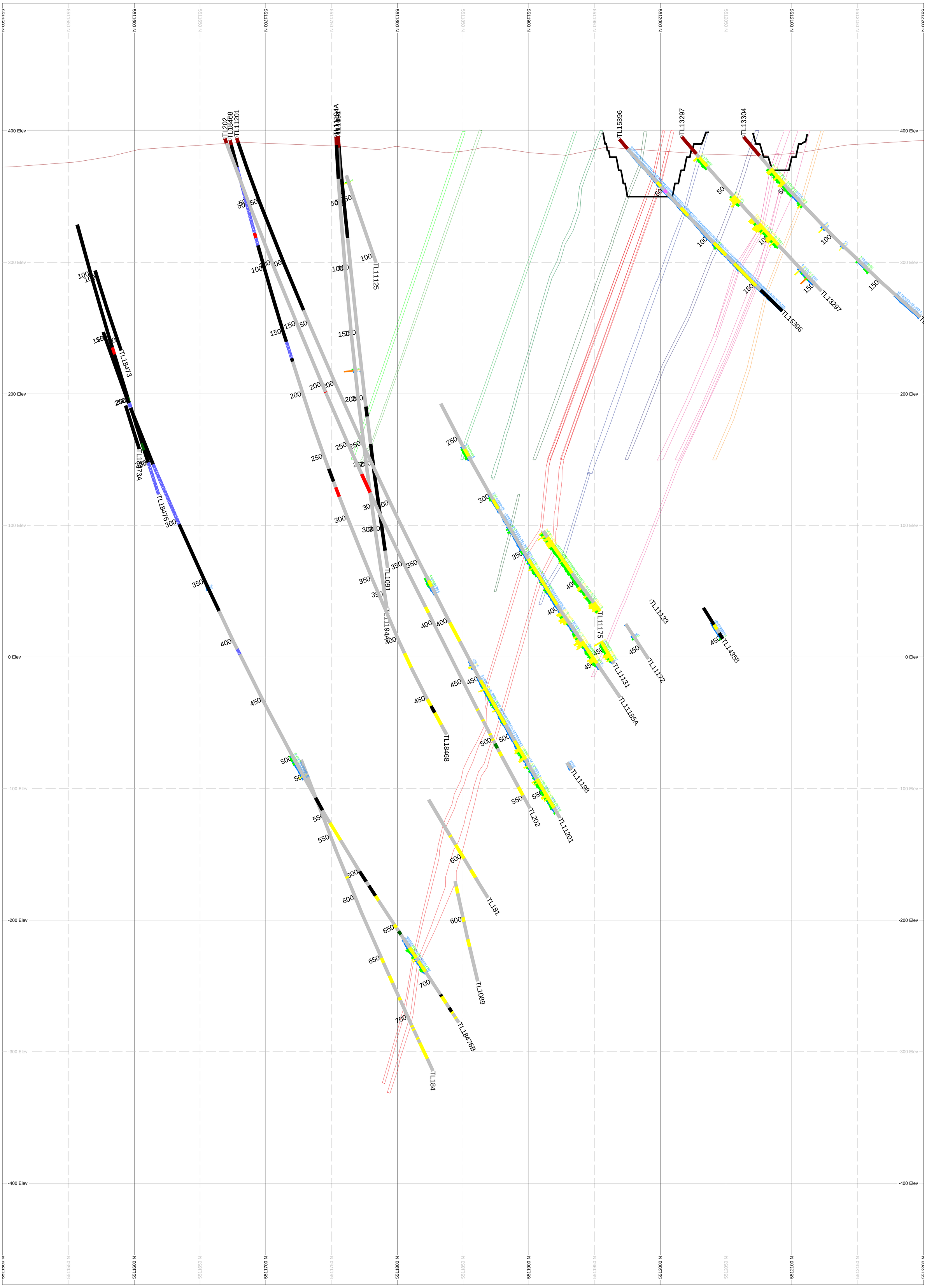
- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
- D (Dyke)
- MSED (Metasediments)
- MTVOL (Metavolcanics)
- QFP (Quartz Feldspar Porphyry)
- FZ (Fault Zone)
- BS (Biotite Schist)
- MD (Mafic Dyke)
- MSS (Muscovite Sericite Schist)
- OB (Overburden)
- QP (Quartz Porphyry)

TREASURY METALS Inc.

Goliath Gold Project	
528125	1:1250
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

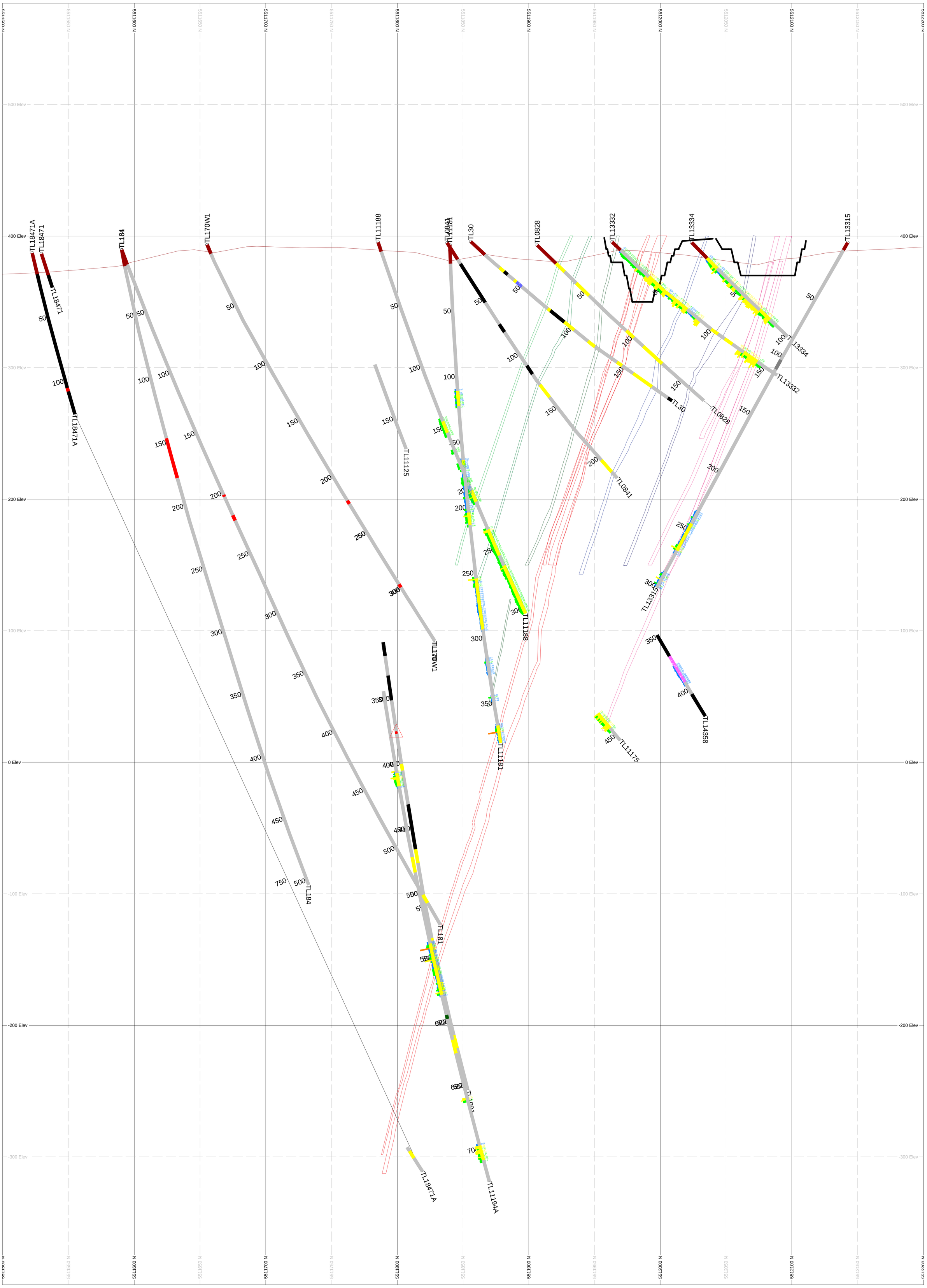
- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
- D (Dyke)
- MSED (Metasediments)
- MTVOL (Metavolcanics)
- QFP (Quartz Feldspar Porphyry)
- FZ (Fault Zone)
- BS (Biotite Schist)
- MD (Mafic Dyke)
- MSS (Muscovite Sericite Schist)
- OB (Overburden)
- QP (Quartz Porphyry)

TREASURY METALS Inc.

Goliath Gold Project	
528100	1:1250
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

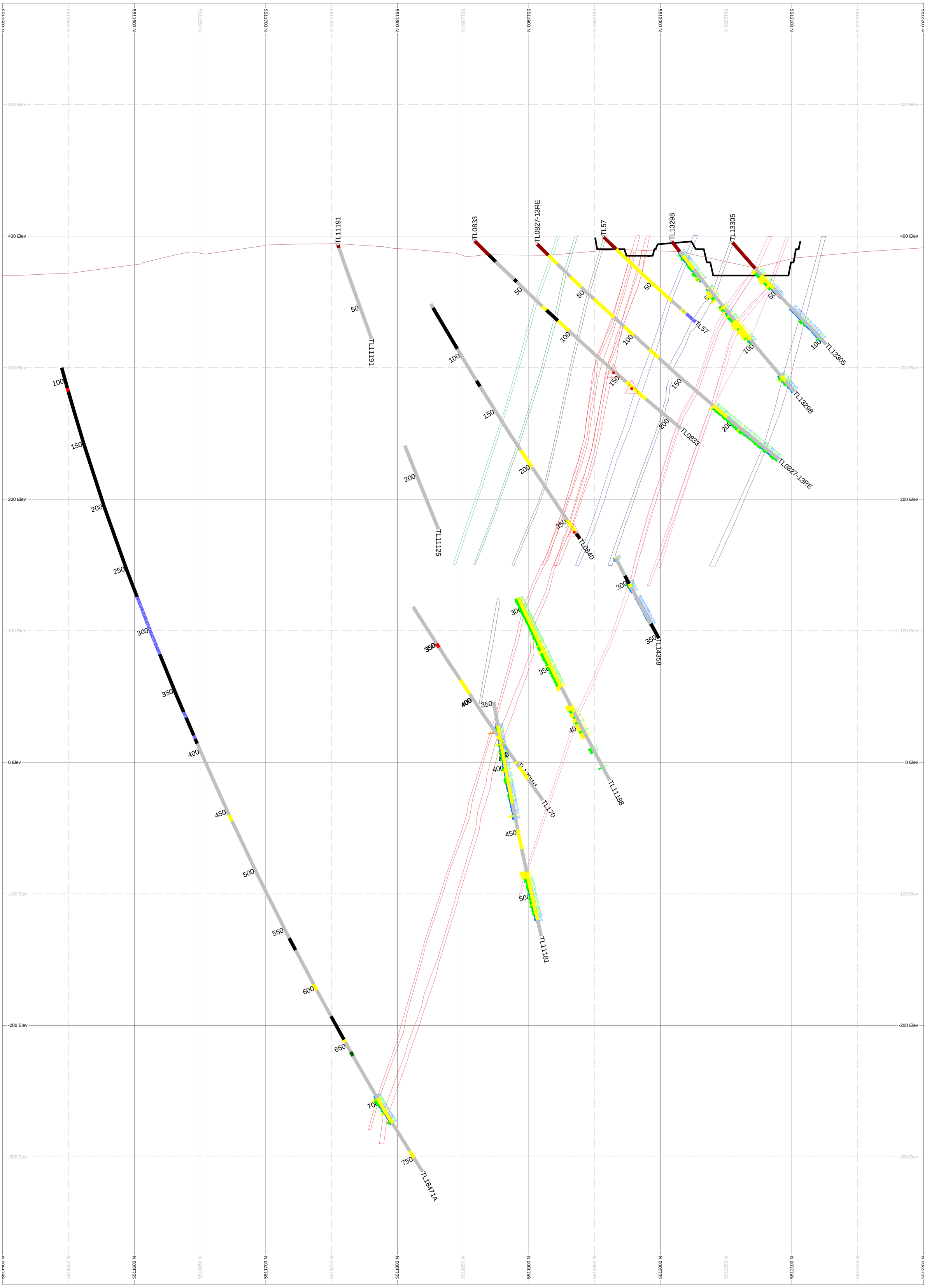
- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
- D (Dyke)
- MSED (Metasediments)
- MTVOL (Metavolcanics)
- QFP (Quartz Feldspar Porphyry)
- FZ (Fault Zone)
- BS (Biotite Schist)
- MD (Mafic Dyke)
- MSS (Muscovite Sericite Schist)
- OB (Overburden)
- QP (Quartz Porphyry)

TREASURY METALS Inc.

Goliath Gold Project	
528075	1:1250
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

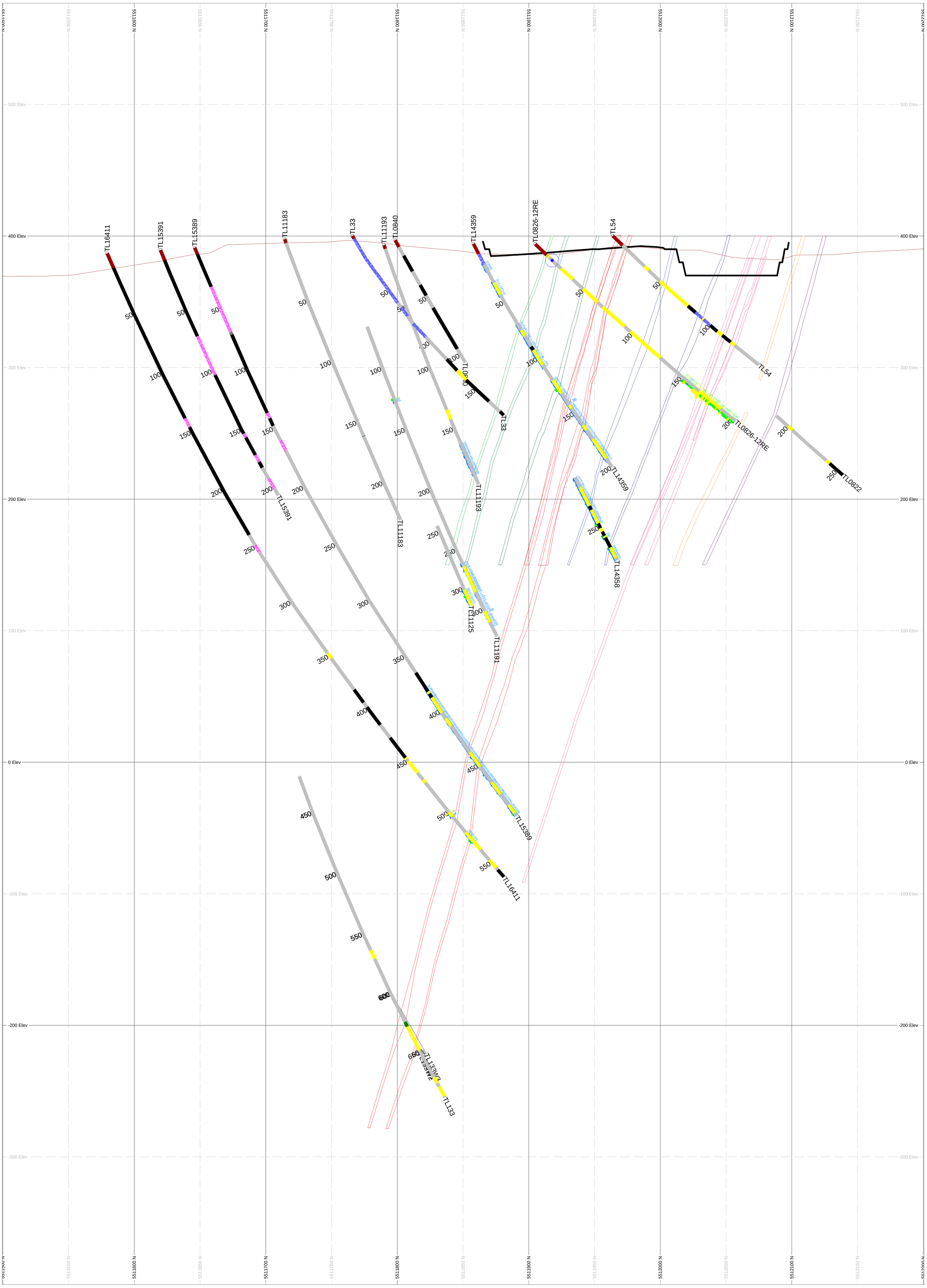
- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
- D (Dyke)
- MSED (Metasediments)
- MTVOL (Metavolcanics)
- QFP (Quartz Feldspar Porphyry)
- FZ (Fault Zone)
- BS (Biotite Schist)
- MD (Mafic Dyke)
- MSS (Muscovite Sericite Schist)
- OB (Overburden)
- QP (Quartz Porphyry)

TREASURY METALS Inc.

Goliath Gold Project	
528050	1:1250
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

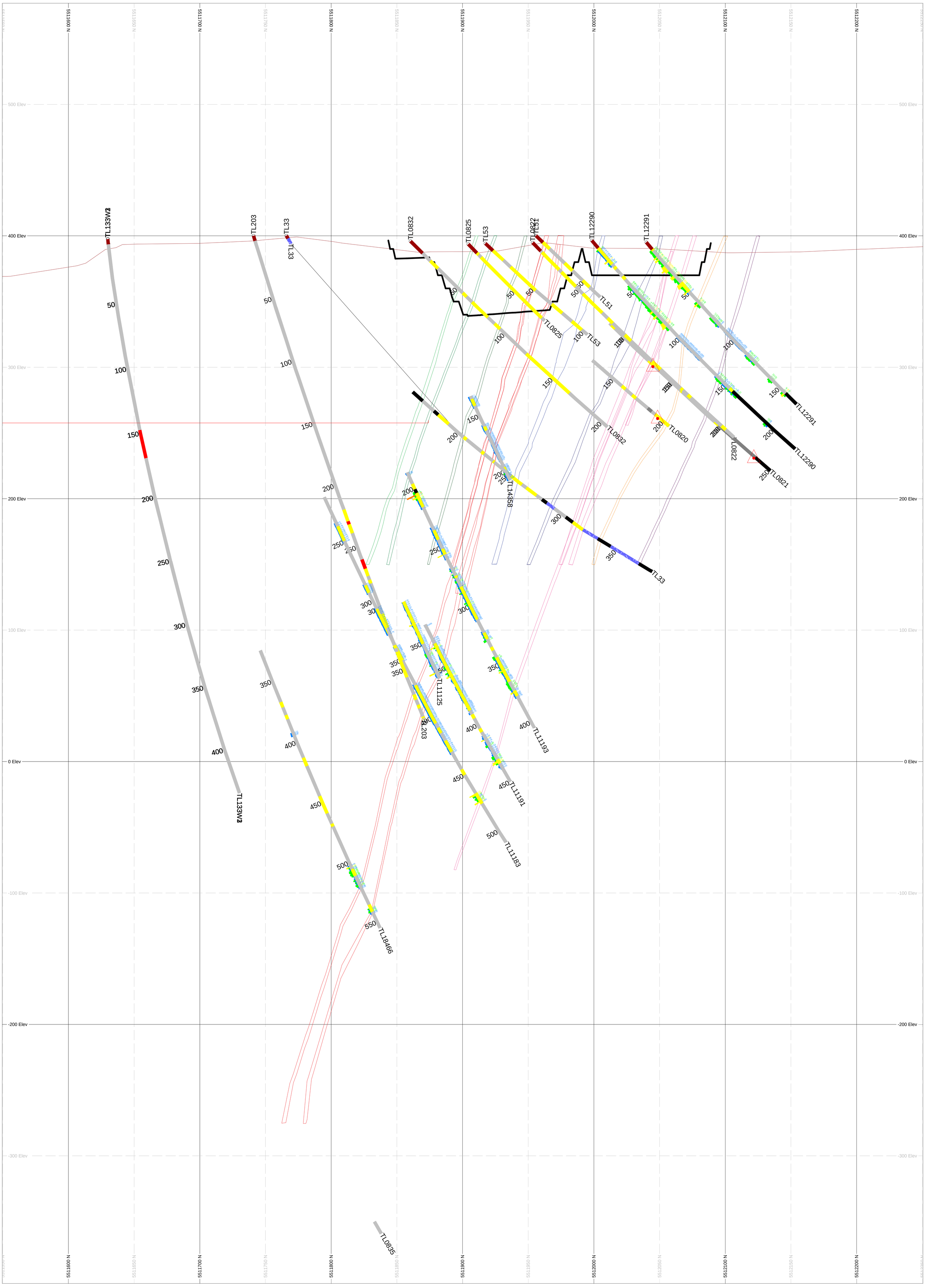
- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
- D (Dyke)
- MSED (Metasediments)
- MTVOL (Metavolcanics)
- QFP (Quartz Feldspar Porphyry)
- FZ (Fault Zone)
- BS (Biotite Schist)
- MD (Mafic Dyke)
- MSS (Muscovite Sericite Schist)
- OB (Overburden)
- QP (Quartz Porphyry)

TREASURY METALS Inc.

Goliath Gold Project	
528025	1:1250
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
- D (Dyke)
- MSED (Metasediments)
- MTVOL (Metavolcanics)
- QFP (Quartz Feldspar Porphyry)
- FZ (Fault Zone)
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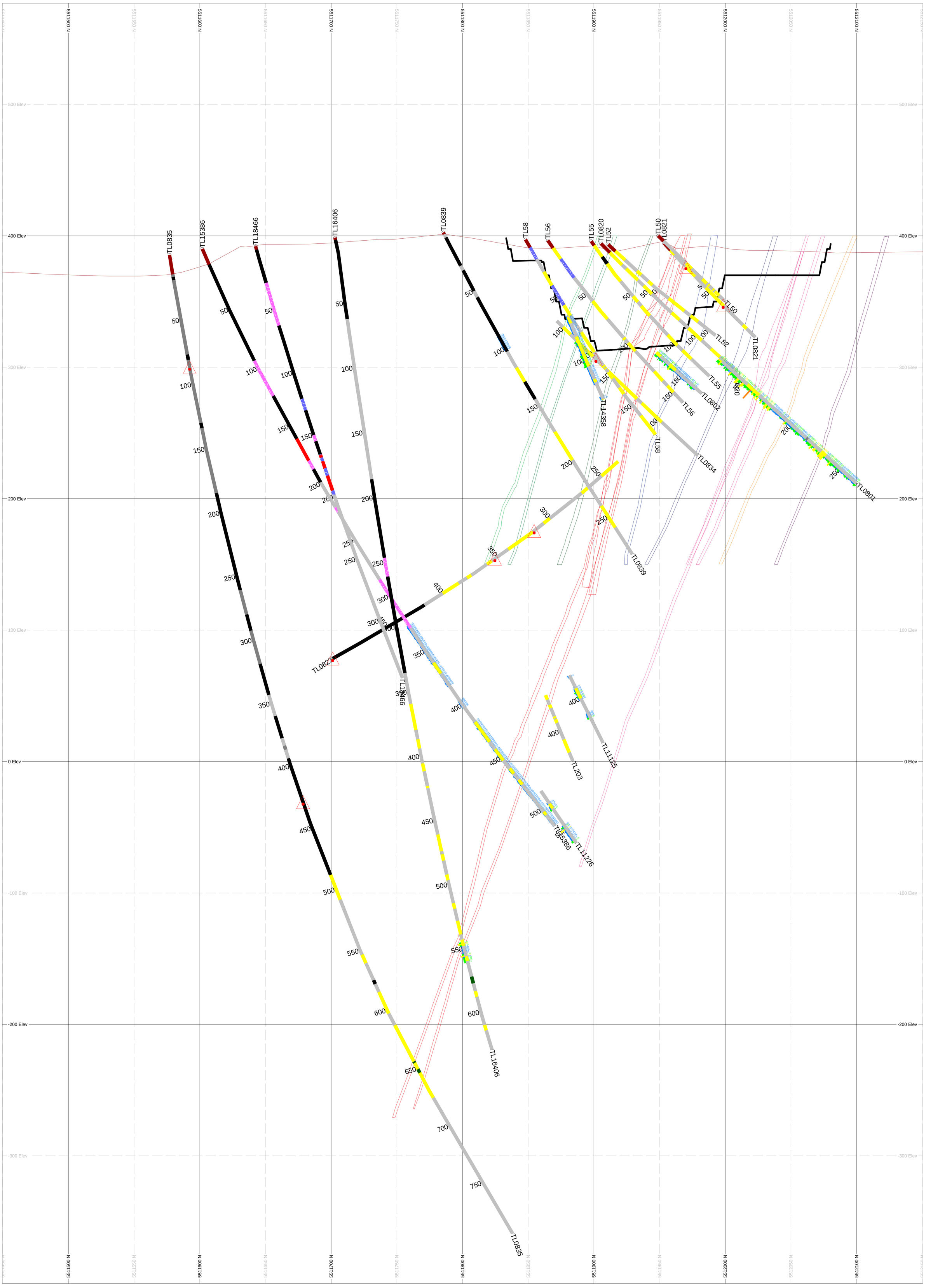
- MD (Mafic Dyke)
- MSS (Muscovite Sericite Schist)
- OB (Overburden)
- QP (Quartz Porphyry)

TREASURY METALS Inc.

Goliath Gold Project	
528000	1:1250
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

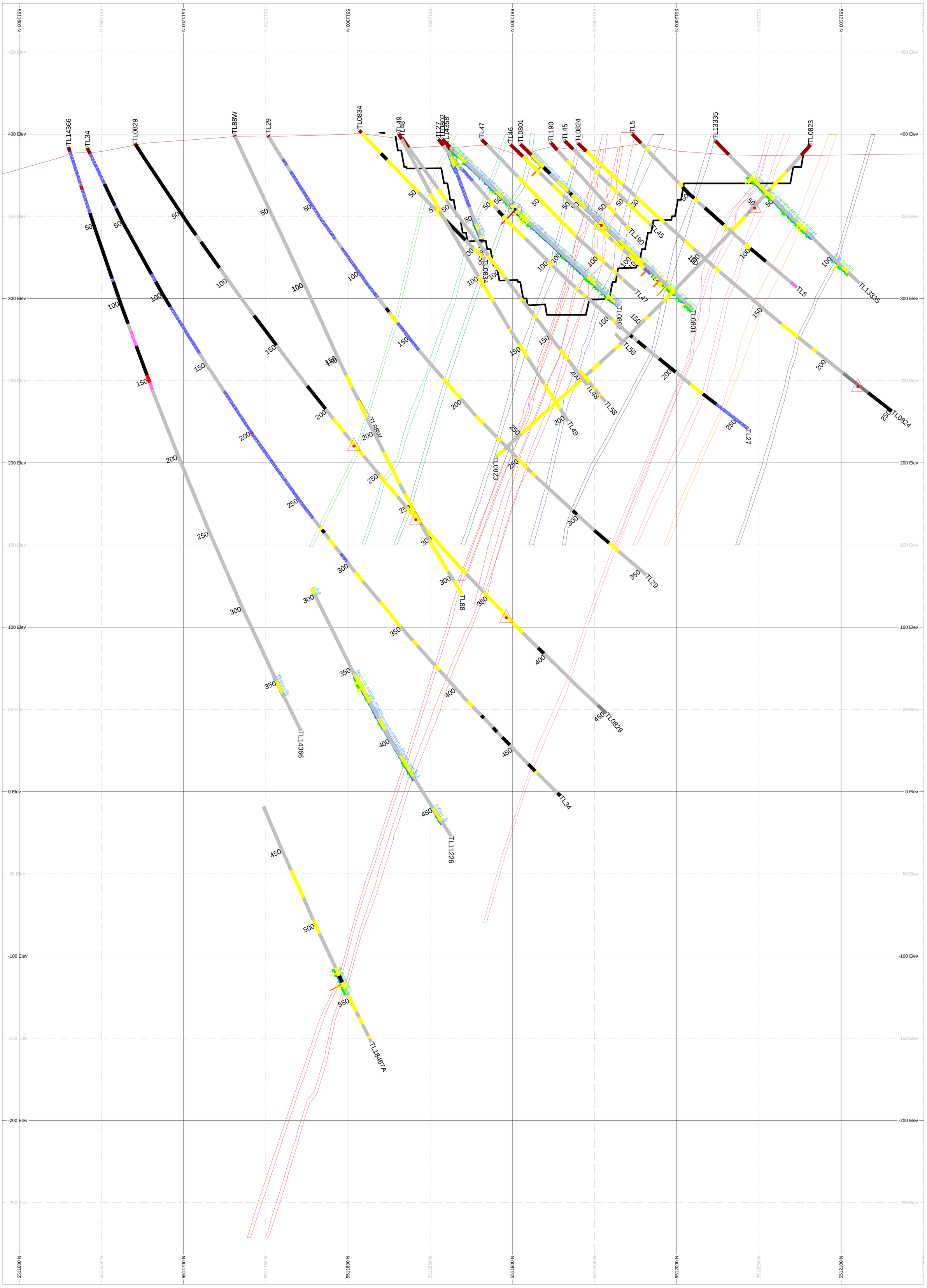
- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
- BS (Biotite Schist)
- D (Dyke)
- MD (Mafic Dyke)
- MSED (Metasediments)
- MSS (Muscovite Sericite Schist)
- MTVOL (Metavolcanics)
- OB (Overburden)
- QFP (Quartz Feldspar Porphyry)
- QP (Quartz Porphyry)
- FZ (Fault Zone)

TREASURY METALS Inc.

Goliath Gold Project	
527975	1:1250
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

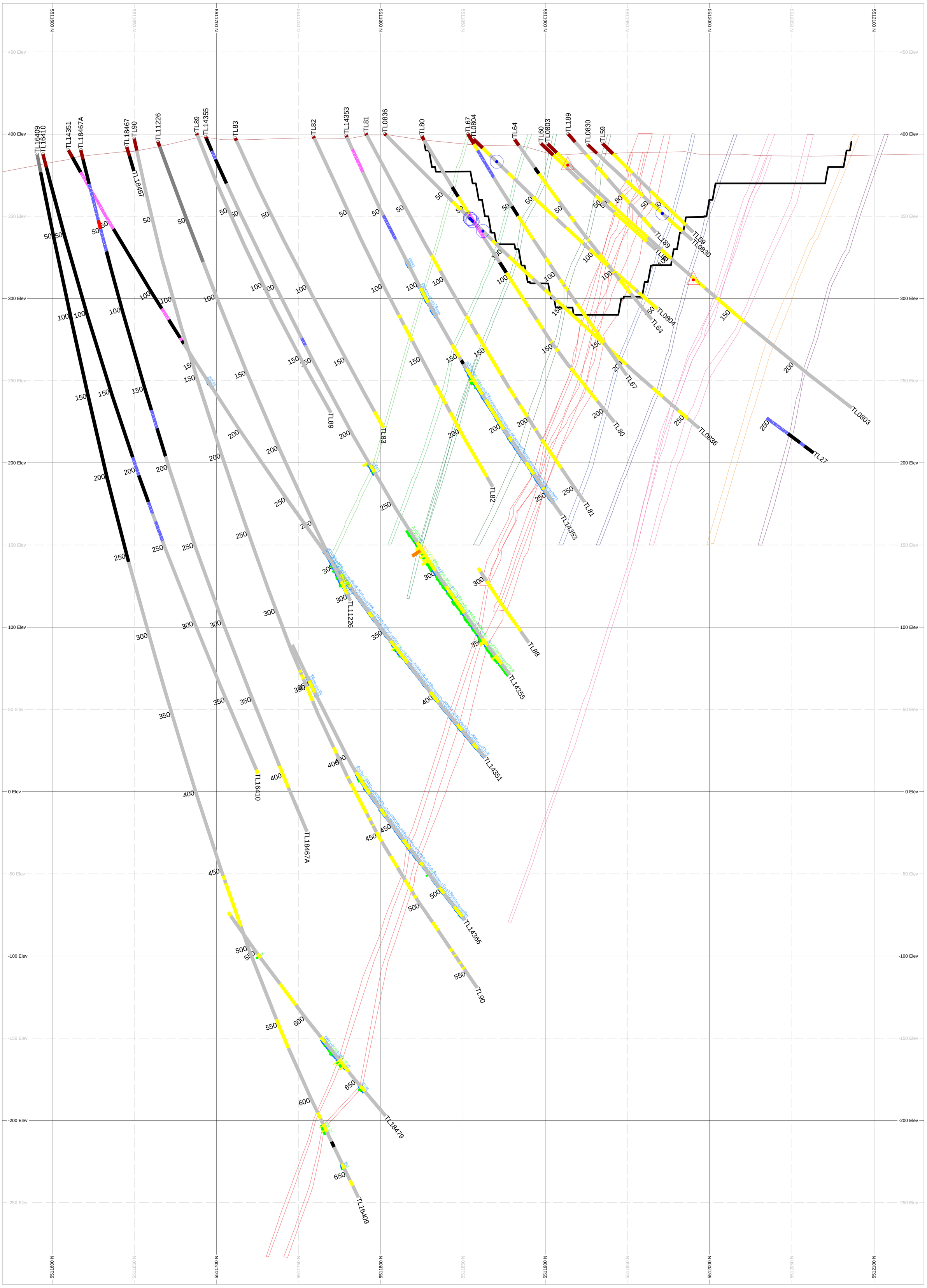
- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
- BS (Biotite Schist)
- D (Dyke)
- MD (Mafic Dyke)
- MSED (Metasediments)
- MSS (Muscovite Sericite Schist)
- MTVOL (Metavolcanics)
- OB (Overburden)
- QFP (Quartz Feldspar Porphyry)
- QP (Quartz Porphyry)
- FZ (Fault Zone)

TREASURY METALS Inc.

Goliath Gold Project	
527950	1:1000
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

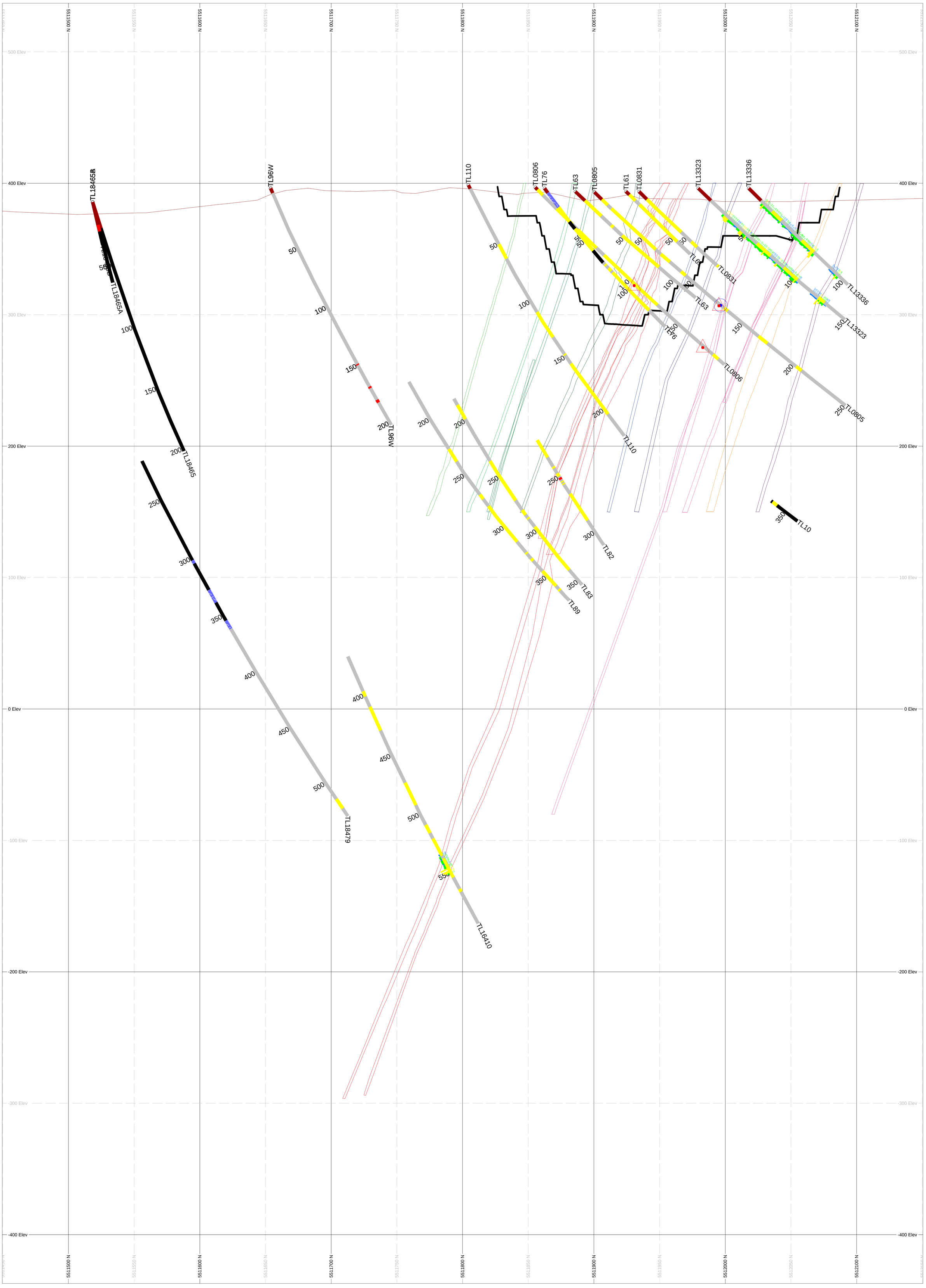
- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
- BS (Biotite Schist)
- D (Dyke)
- MD (Mafic Dyke)
- MSED (Metasediments)
- MSS (Muscovite Sericite Schist)
- MTVOL (Metavolcanics)
- OB (Overburden)
- QFP (Quartz Feldspar Porphyry)
- QP (Quartz Porphyry)
- FZ (Fault Zone)

TREASURY METALS Inc.

Goliath Gold Project	
527925	1:1000
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

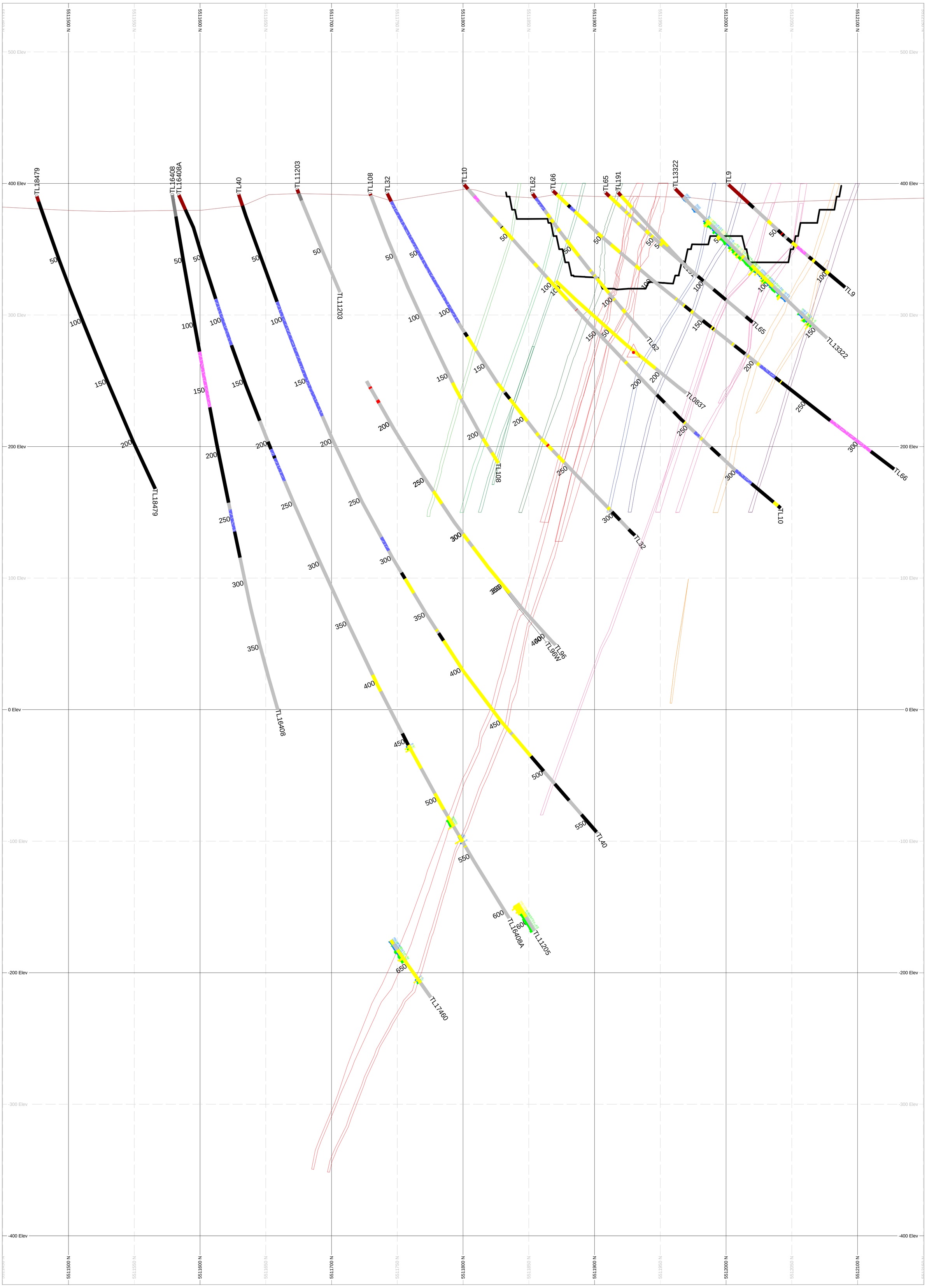
- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
- D (Dyke)
- MSED (Metasediments)
- MTVOL (Metavolcanics)
- QFP (Quartz Feldspar Porphyry)
- FZ (Fault Zone)
- BS (Biotite Schist)
- MD (Mafic Dyke)
- MSS (Muscovite Sericite Schist)
- OB (Overburden)
- QP (Quartz Porphyry)

TREASURY METALS Inc.

Goliath Gold Project	
527900	1:1250
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

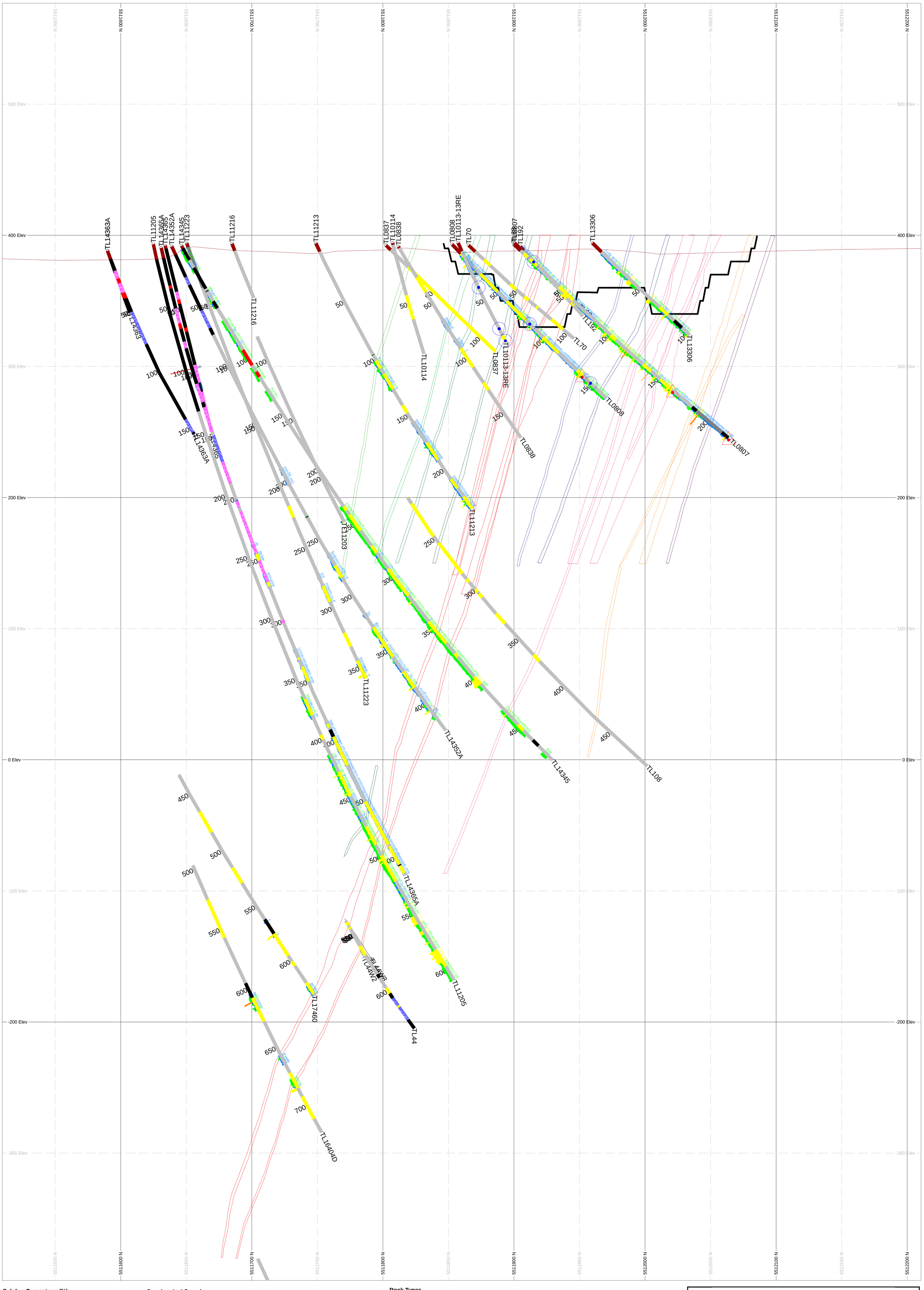
- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
- D (Dyke)
- MSED (Metasediments)
- MTVOL (Metavolcanics)
- QFP (Quartz Feldspar Porphyry)
- FZ (Fault Zone)
- BS (Biotite Schist)
- MD (Mafic Dyke)
- MSS (Muscovite Sericite Schist)
- OB (Overburden)
- QP (Quartz Porphyry)

TREASURY METALS Inc.

Goliath Gold Project	
527875	1:1250
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

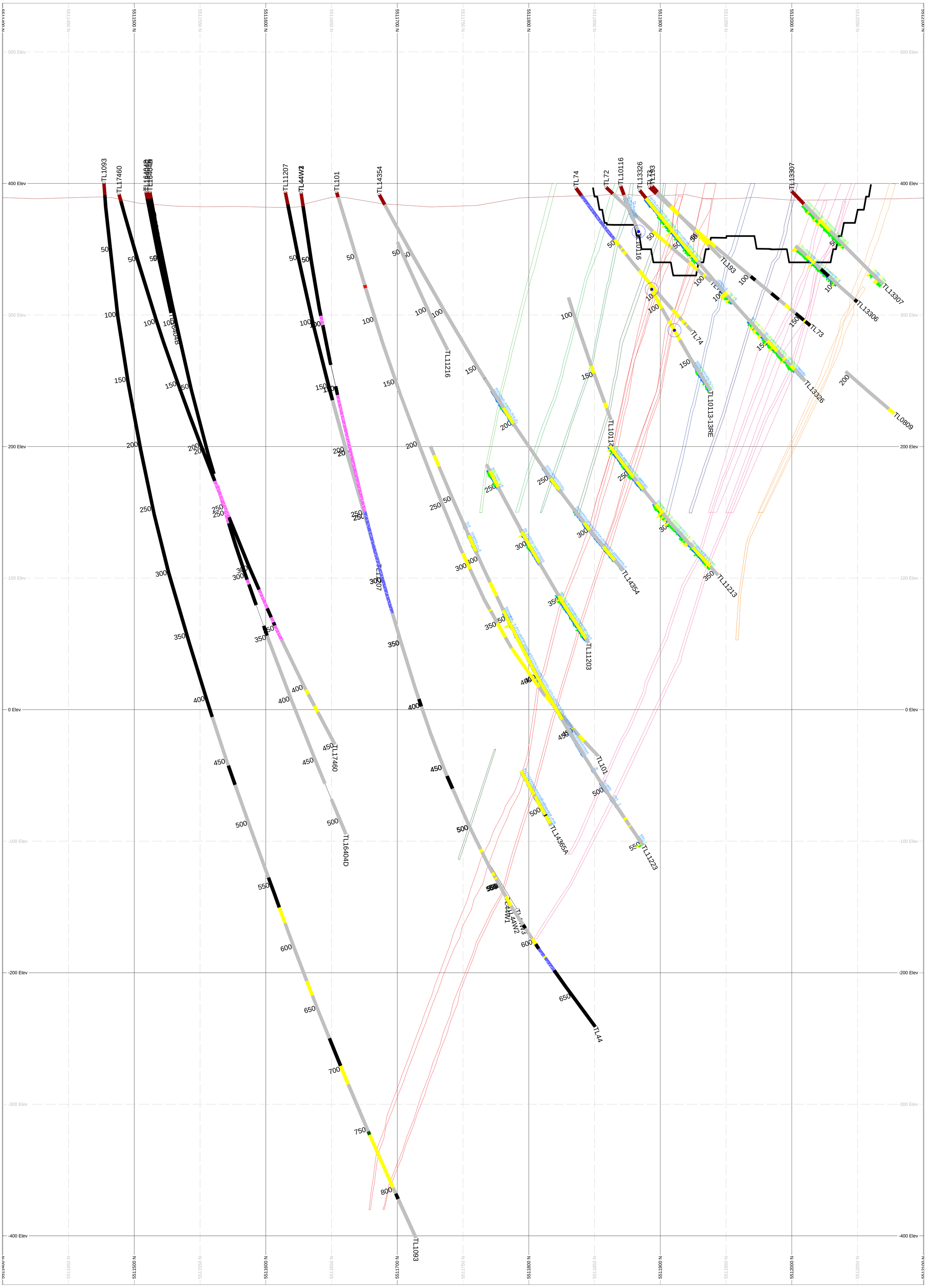
- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
- D (Dyke)
- MSED (Metasediments)
- MTVOL (Metavolcanics)
- QFP (Quartz Feldspar Porphyry)
- FZ (Fault Zone)
- BS (Biotite Schist)
- MD (Mafic Dyke)
- MSS (Muscovite Sericite Schist)
- OB (Overburden)
- QP (Quartz Porphyry)

TREASURY METALS Inc.

Goliath Gold Project	
527850	1:1250
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
- D (Dyke)
- MSED (Metasediments)
- MTVOL (Metavolcanics)
- QFP (Quartz Feldspar Porphyry)
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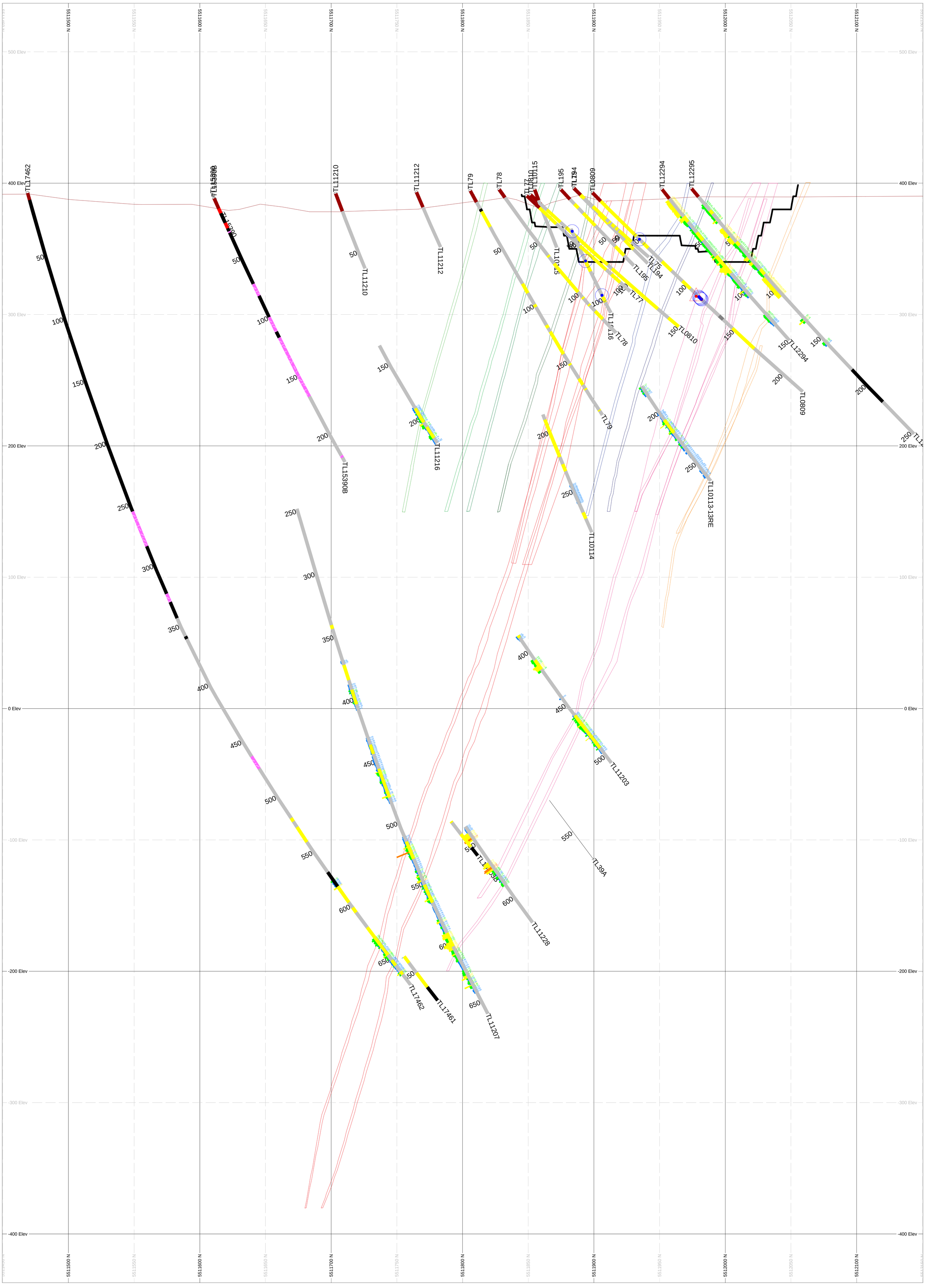
- MD (Mafic Dyke)
- MSS (Muscovite Sericite Schist)
- OB (Overburden)
- QP (Quartz Porphyry)

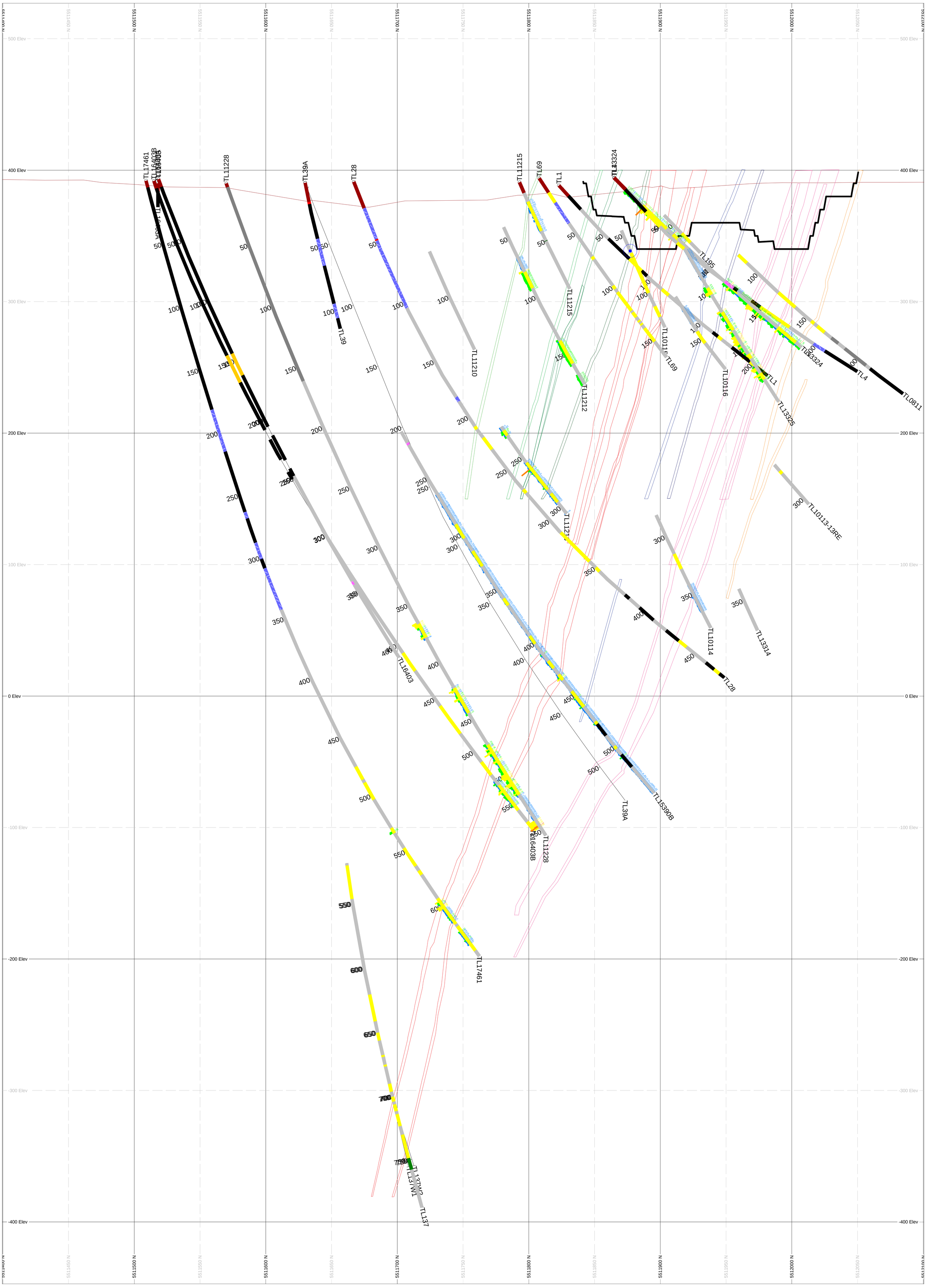
TREASURY METALS Inc.

Goliath Gold Project	
527825	1:1250
Date: January 18, 2019	Office: Dryden, ON



TREASURY METALS Inc.

Goliath Gold Project	
527800	1:1250
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

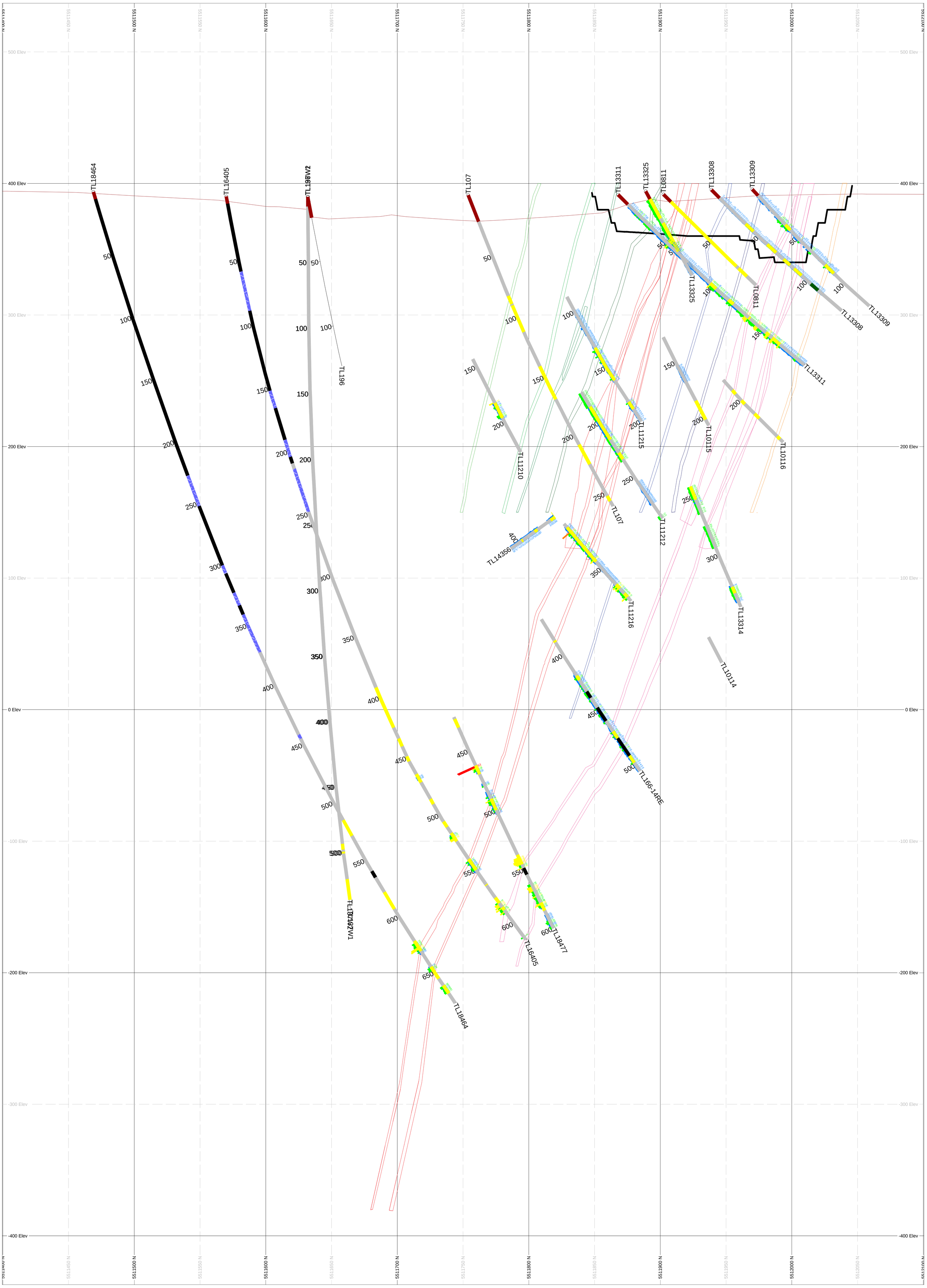
Rock Types

- BMS (Biotite Muscovite Schist)
- BS (Biotite Schist)
- D (Dyke)
- MD (Mafic Dyke)
- MSED (Metasediments)
- MSS (Muscovite Sericite Schist)
- MTVOL (Metavolcanics)
- OB (Overburden)
- QFP (Quartz Feldspar Porphyry)
- QP (Quartz Porphyry)
- FZ (Fault Zone)

TREASURY METALS Inc.

Goliath Gold Project

527775	1:1250
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

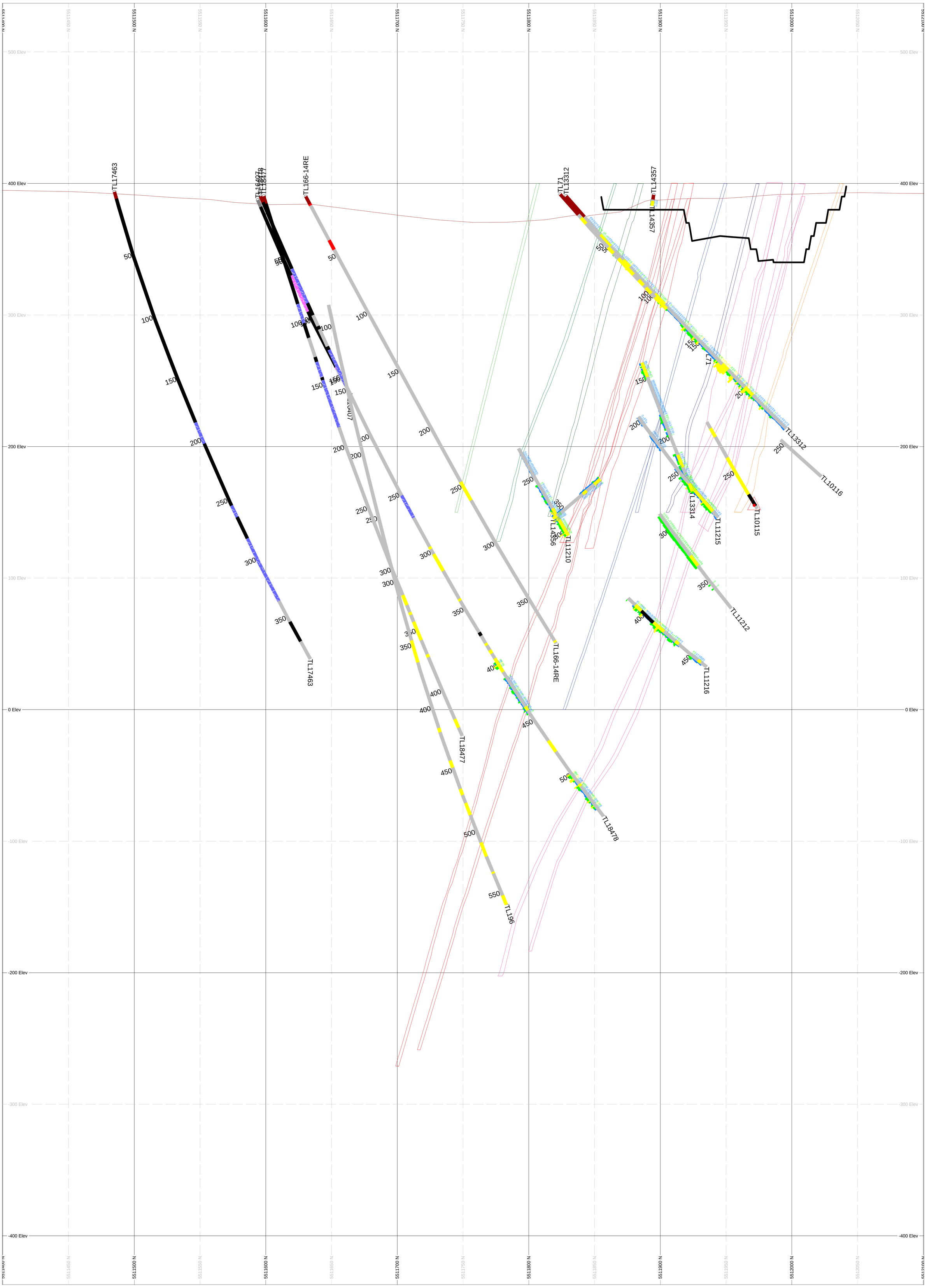
- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
- BS (Biotite Schist)
- D (Dyke)
- MD (Mafic Dyke)
- MSED (Metasediments)
- MSS (Muscovite Sericite Schist)
- MTVOL (Metavolcanics)
- OB (Overburden)
- QFP (Quartz Feldspar Porphyry)
- QP (Quartz Porphyry)
- FZ (Fault Zone)

TREASURY METALS Inc.

Goliath Gold Project	
527750	1:1250
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

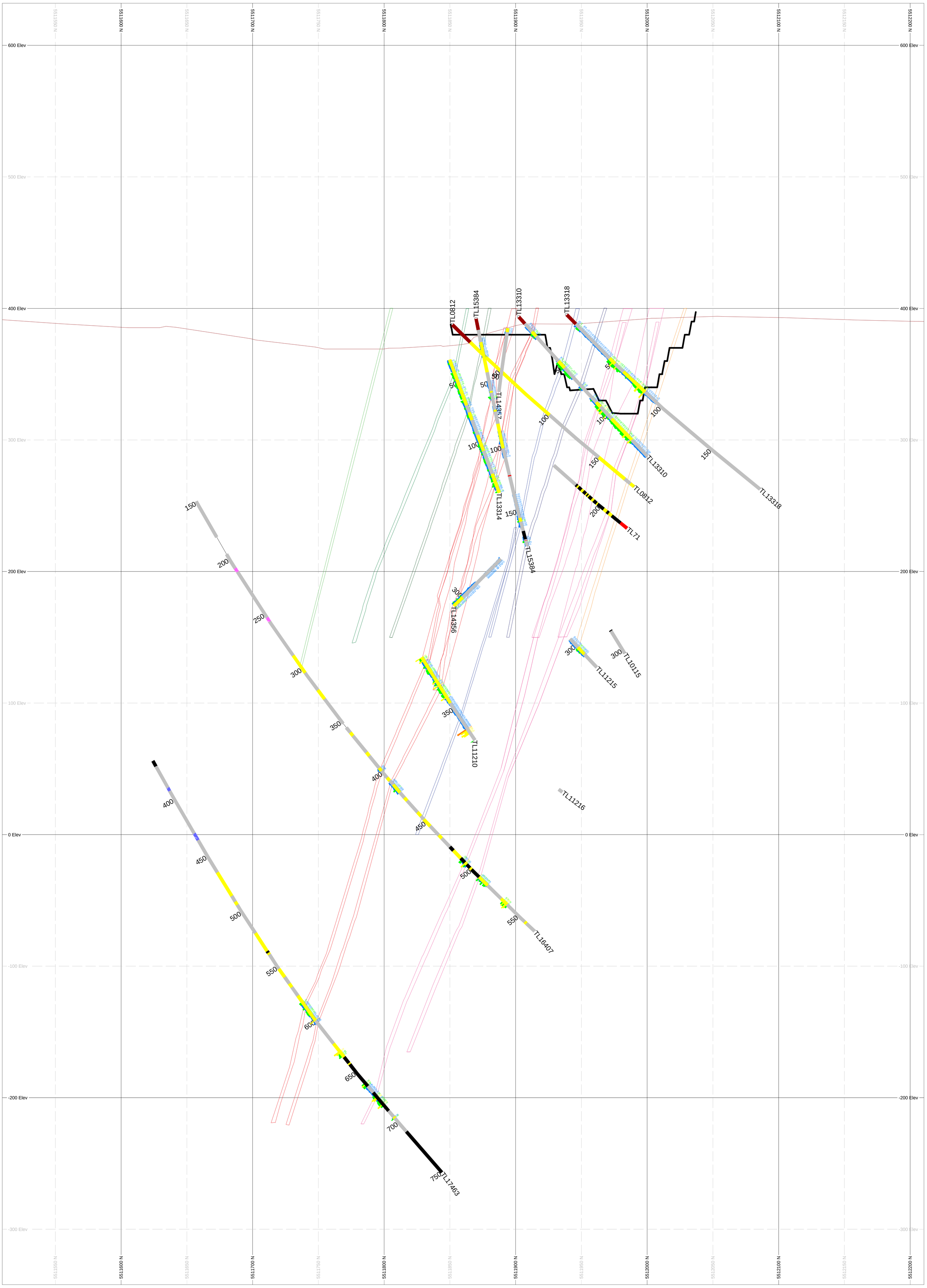
- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
- D (Dyke)
- MSED (Metasediments)
- MTVOL (Metavolcanics)
- QFP (Quartz Feldspar Porphyry)
- FZ (Fault Zone)
- BS (Biotite Schist)
- MD (Mafic Dyke)
- MSS (Muscovite Sericite Schist)
- OB (Overburden)
- QP (Quartz Porphyry)

TREASURY METALS Inc.

Goliath Gold Project	
527725	1:1250
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
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- 5.0 - 10.0
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Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
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- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
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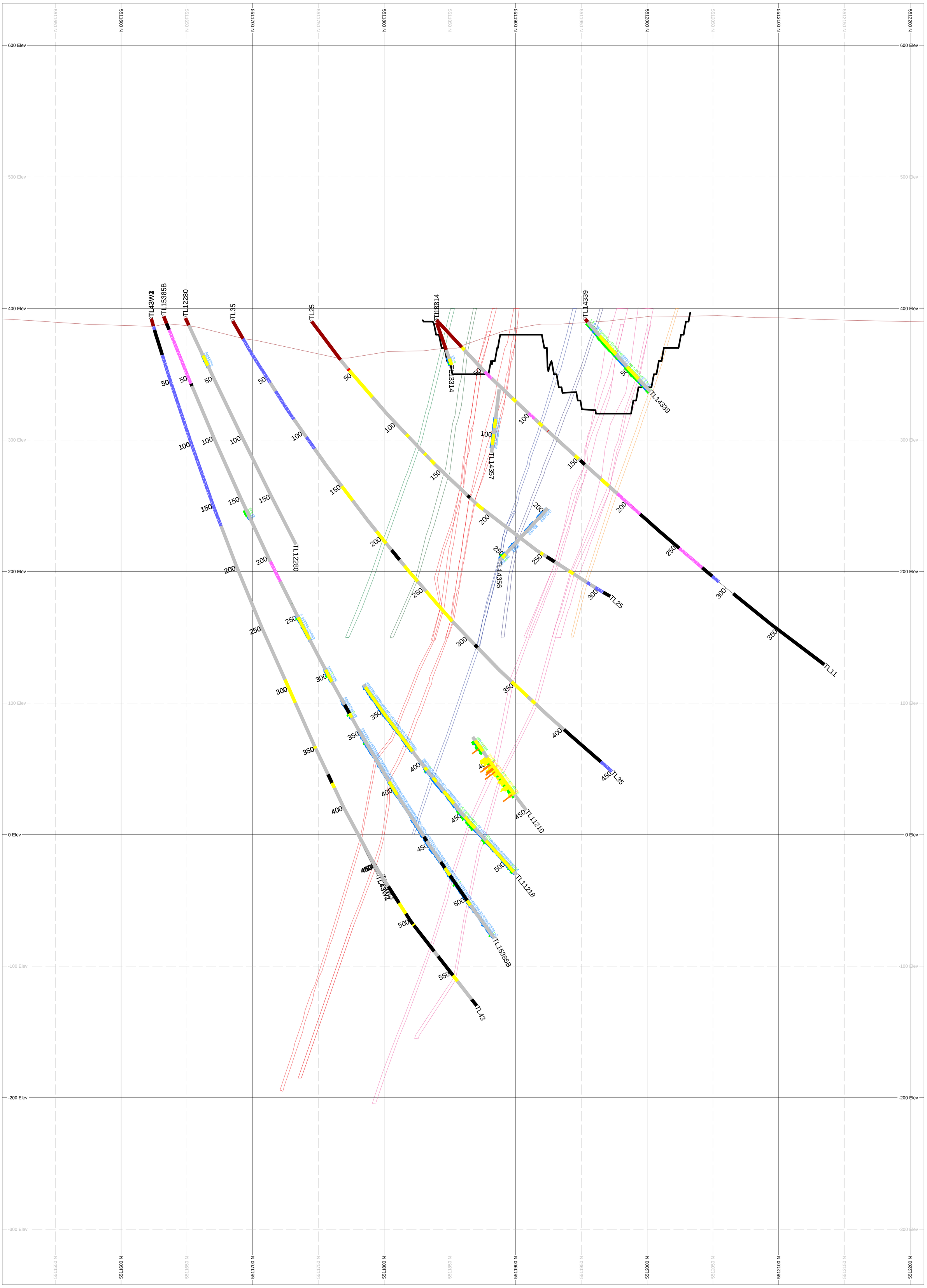
Rock Types

- BMS (Biotite Muscovite Schist)
- BS (Biotite Schist)
- D (Dyke)
- MD (Mafic Dyke)
- MSED (Metasediments)
- MSS (Muscovite Sericite Schist)
- MTVOL (Metavolcanics)
- OB (Overburden)
- QFP (Quartz Feldspar Porphyry)
- QP (Quartz Porphyry)
- FZ (Fault Zone)

TREASURY METALS Inc.

Goliath Gold Project	
527700	1:1250
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

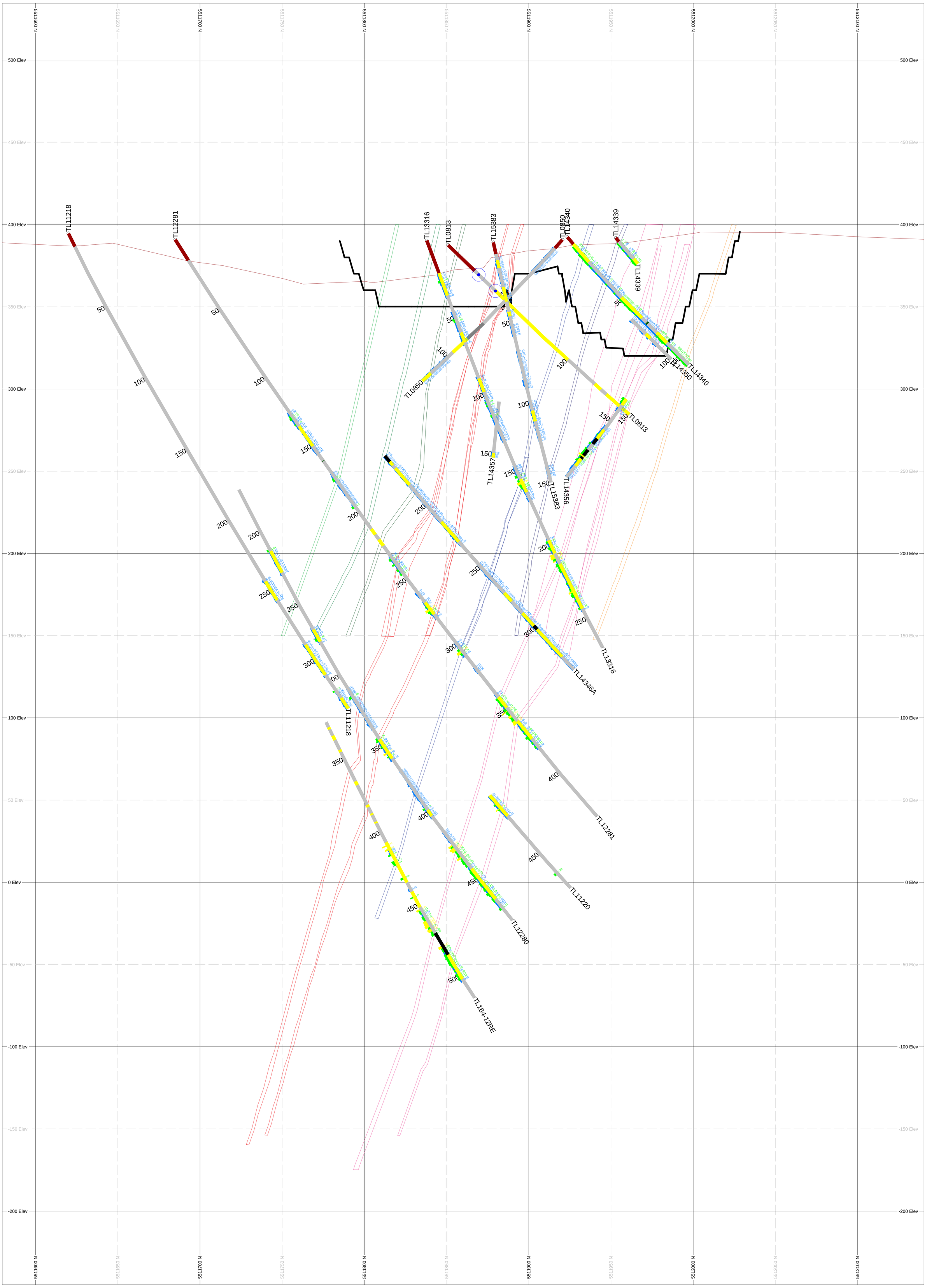
Rock Types

- BMS (Biotite Muscovite Schist)
- BS (Biotite Schist)
- D (Dyke)
- MD (Mafic Dyke)
- MSED (Metasediments)
- MSS (Muscovite Sericite Schist)
- MTVOL (Metavolcanics)
- OB (Overburden)
- QFP (Quartz Feldspar Porphyry)
- QP (Quartz Porphyry)
- FZ (Fault Zone)

TREASURY METALS Inc.

Goliath Gold Project

527675	1:1250
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

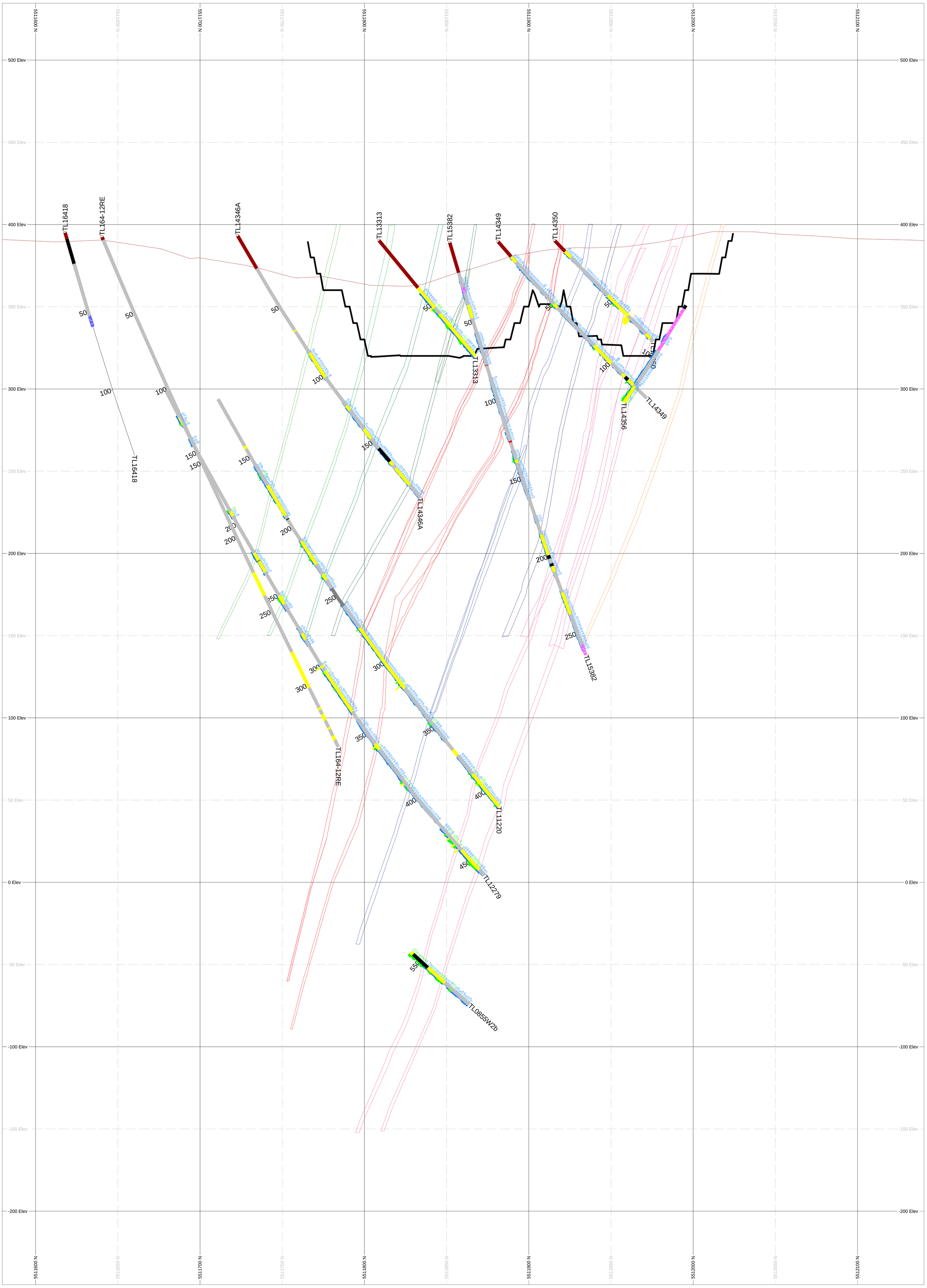
- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
- D (Dyke)
- MSED (Metasediments)
- MTVOL (Metavolcanics)
- QFP (Quartz Feldspar Porphyry)
- FZ (Fault Zone)
- BS (Biotite Schist)
- MD (Mafic Dyke)
- MSS (Muscovite Sericite Schist)
- OB (Overburden)
- QP (Quartz Porphyry)

TREASURY METALS Inc.

Goliath Gold Project	
527650	1:1000
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

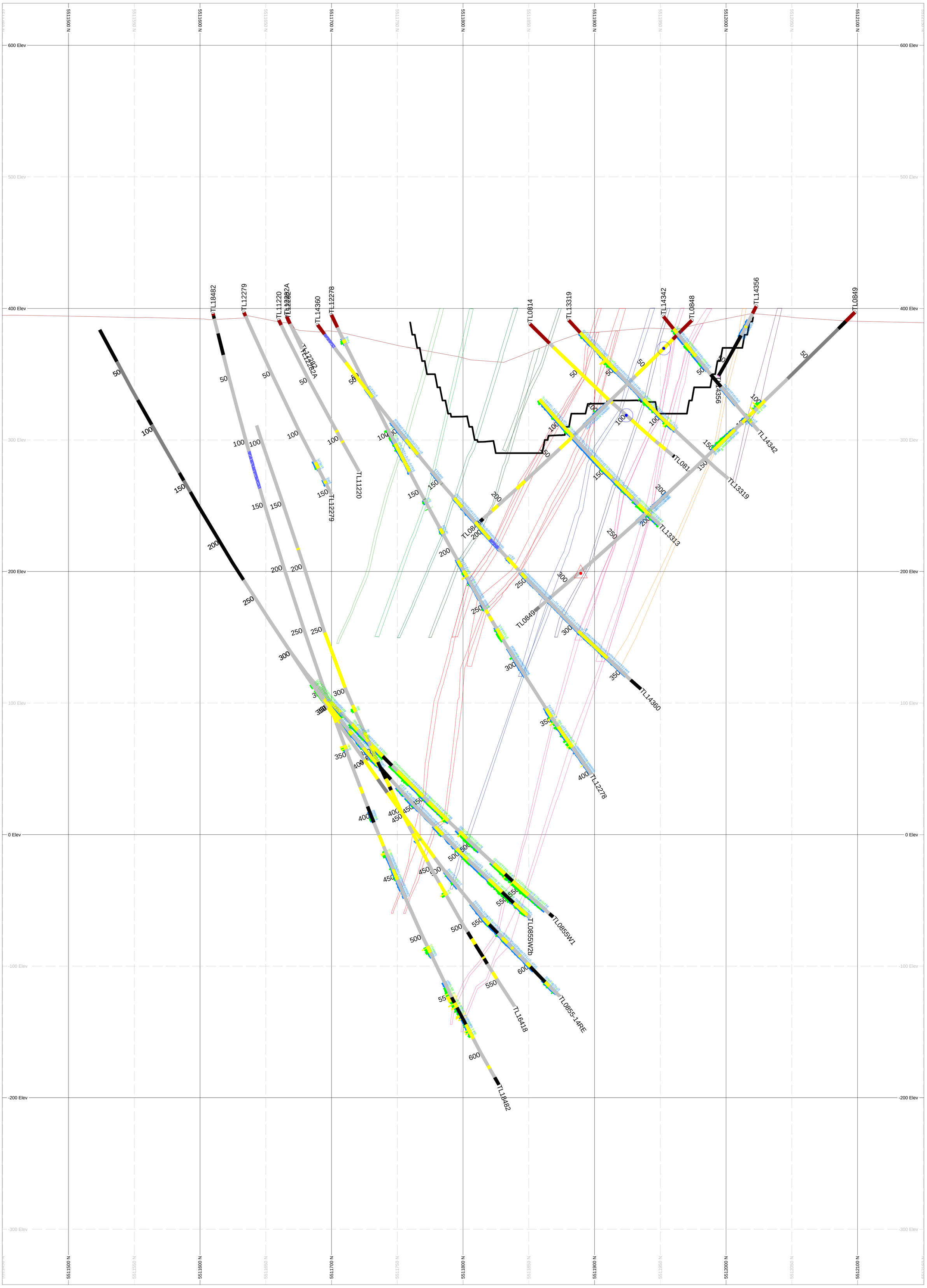
- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
- D (Dyke)
- MSED (Metasediments)
- MTVOL (Metavolcanics)
- QFP (Quartz Feldspar Porphyry)
- FZ (Fault Zone)
- BS (Biotite Schist)
- MD (Mafic Dyke)
- MSS (Muscovite Sericite Schist)
- OB (Overburden)
- QP (Quartz Porphyry)

TREASURY METALS Inc.

Goliath Gold Project	
527625	1:1000
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
- BS (Biotite Schist)
- D (Dyke)
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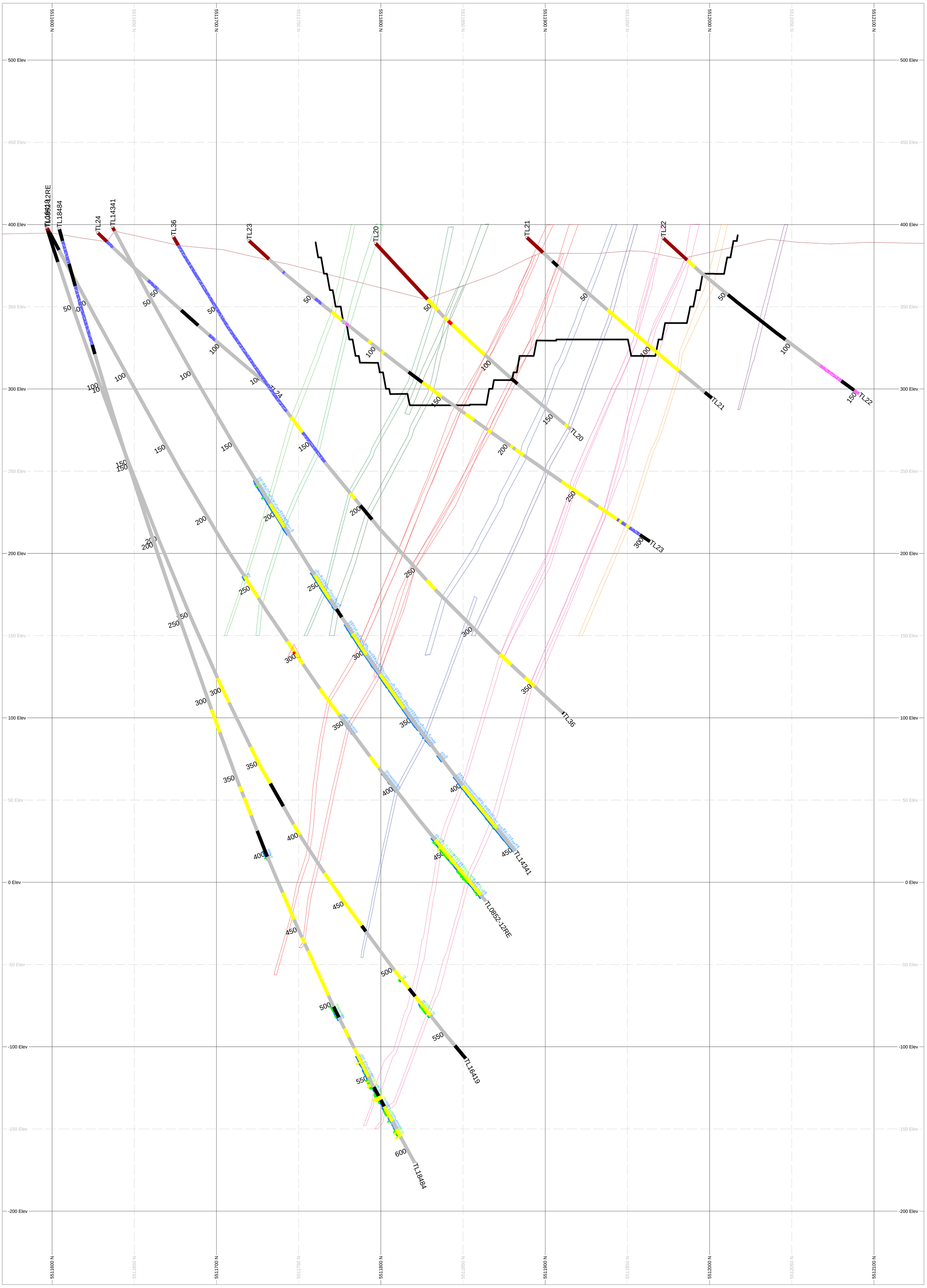
- MSED (Metasediments)
- MSS (Muscovite Sericite Schist)
- MTVOL (Metavolcanics)
- OB (Overburden)
- QFP (Quartz Feldspar Porphyry)
- QP (Quartz Porphyry)
- FZ (Fault Zone)

TREASURY METALS Inc.

Goliath Gold Project	
527600	1:1250
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

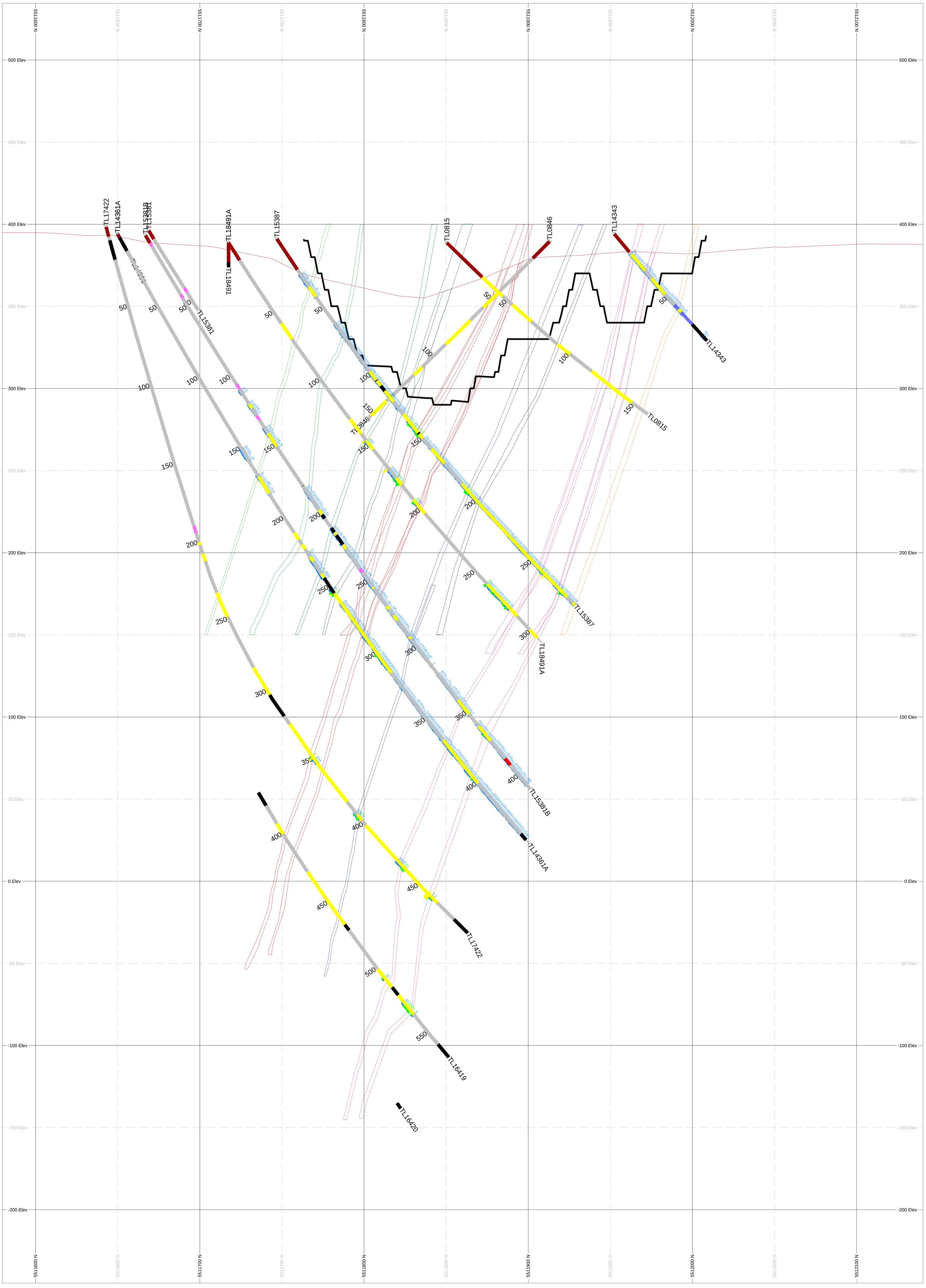
- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
- D (Dyke)
- MSED (Metasediments)
- MTVOL (Metavolcanics)
- QFP (Quartz Feldspar Porphyry)
- FZ (Fault Zone)
- BS (Biotite Schist)
- MD (Mafic Dyke)
- MSS (Muscovite Sericite Schist)
- OB (Overburden)
- QP (Quartz Porphyry)

TREASURY METALS Inc.

Goliath Gold Project	
527575	1:1000
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
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- QFP (Quartz Feldspar Porphyry)
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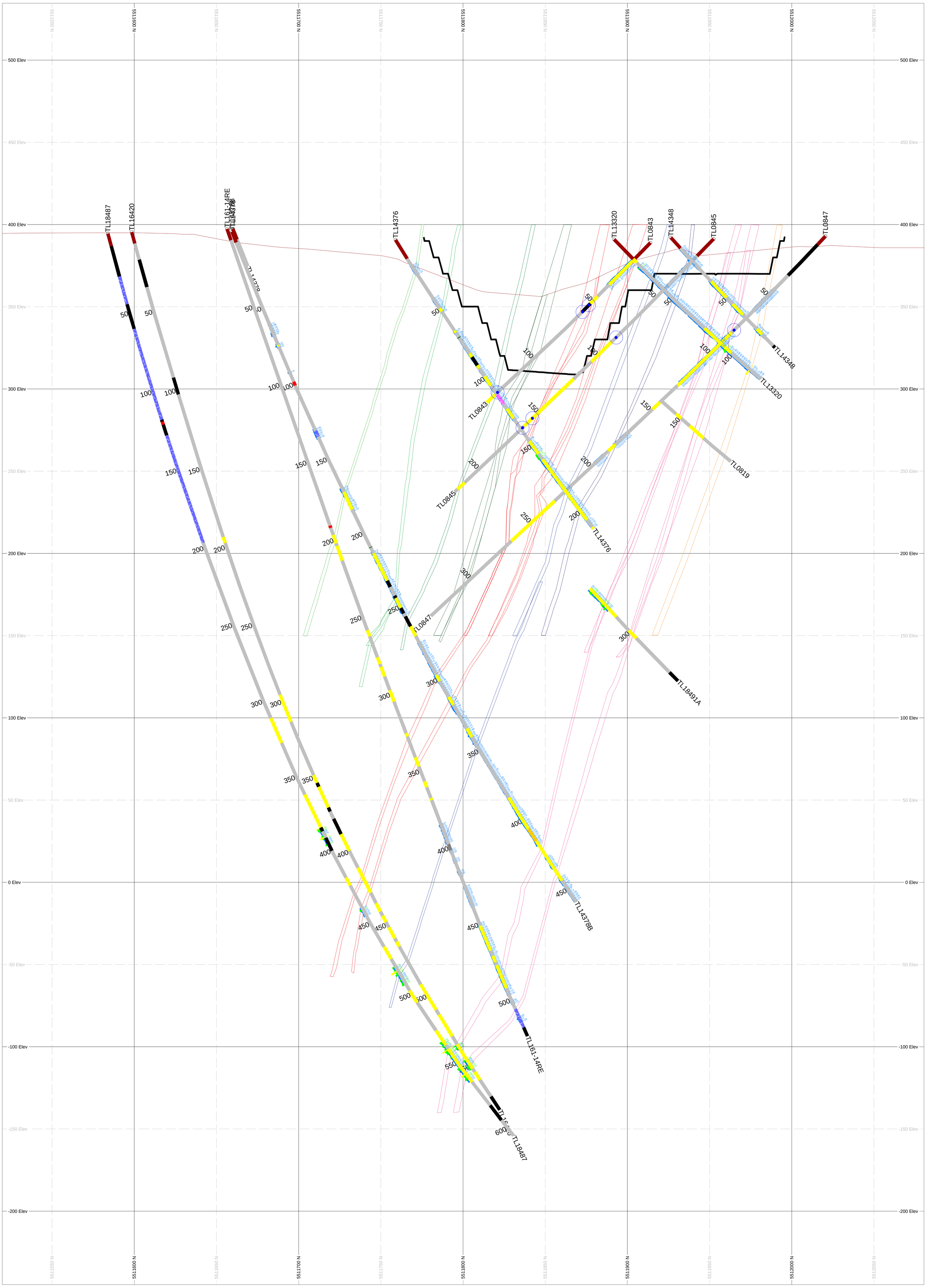
- BS (Biotite Schist)
- MD (Mafic Dyke)
- MSS (Muscovite Sericite Schist)
- OB (Overburden)
- QP (Quartz Porphyry)

TREASURY METALS Inc.

Goliath Gold Project	
527550	1:1000
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

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- MTVOL (Metavolcanics)
- QFP (Quartz Feldspar Porphyry)
- FZ (Fault Zone)
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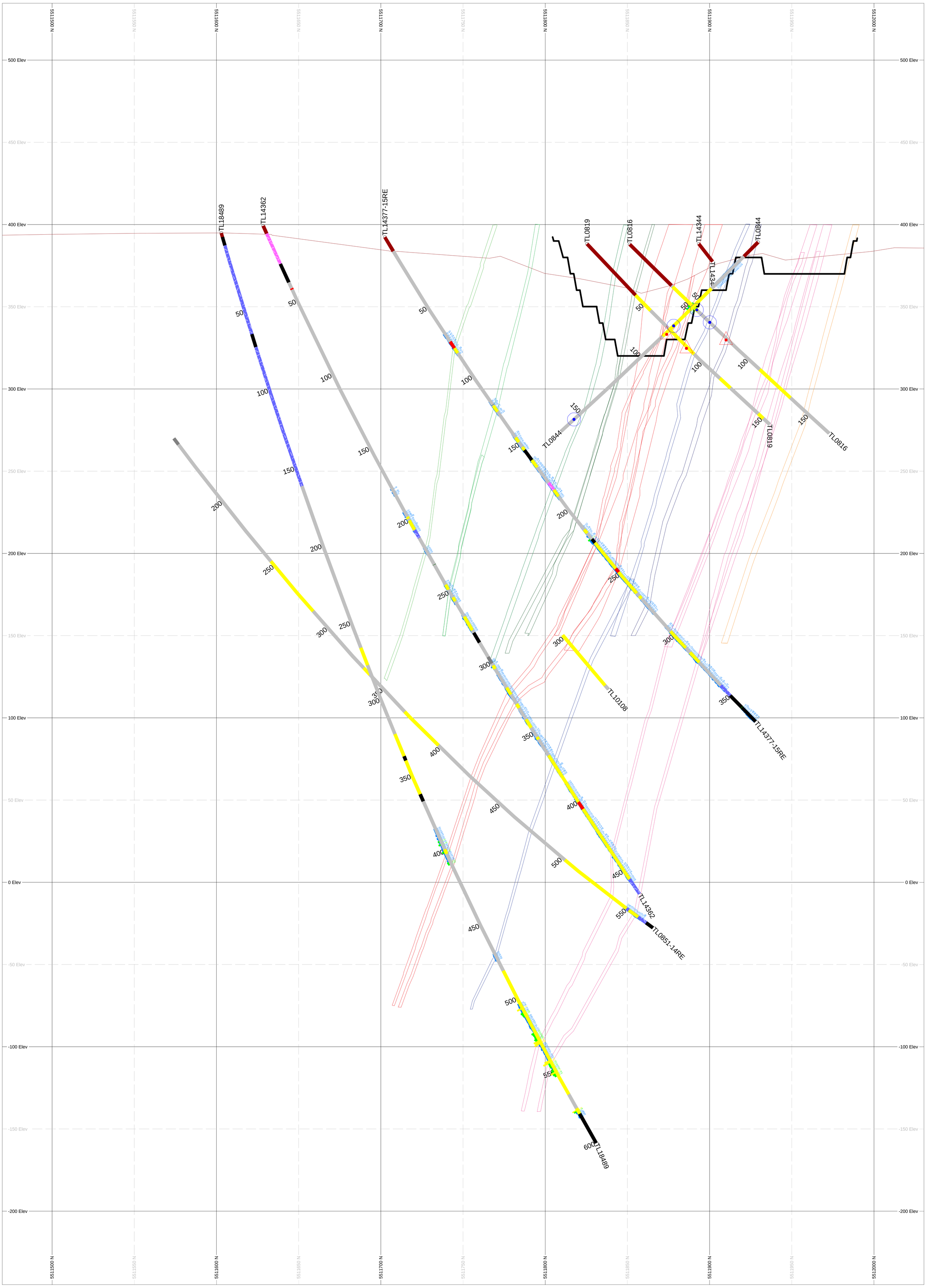
- MD (Mafic Dyke)
- MSS (Muscovite Sericite Schist)
- OB (Overburden)
- QP (Quartz Porphyry)

TREASURY METALS Inc.

Goliath Gold Project	
527525	1:1000
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
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- MSED (Metasediments)
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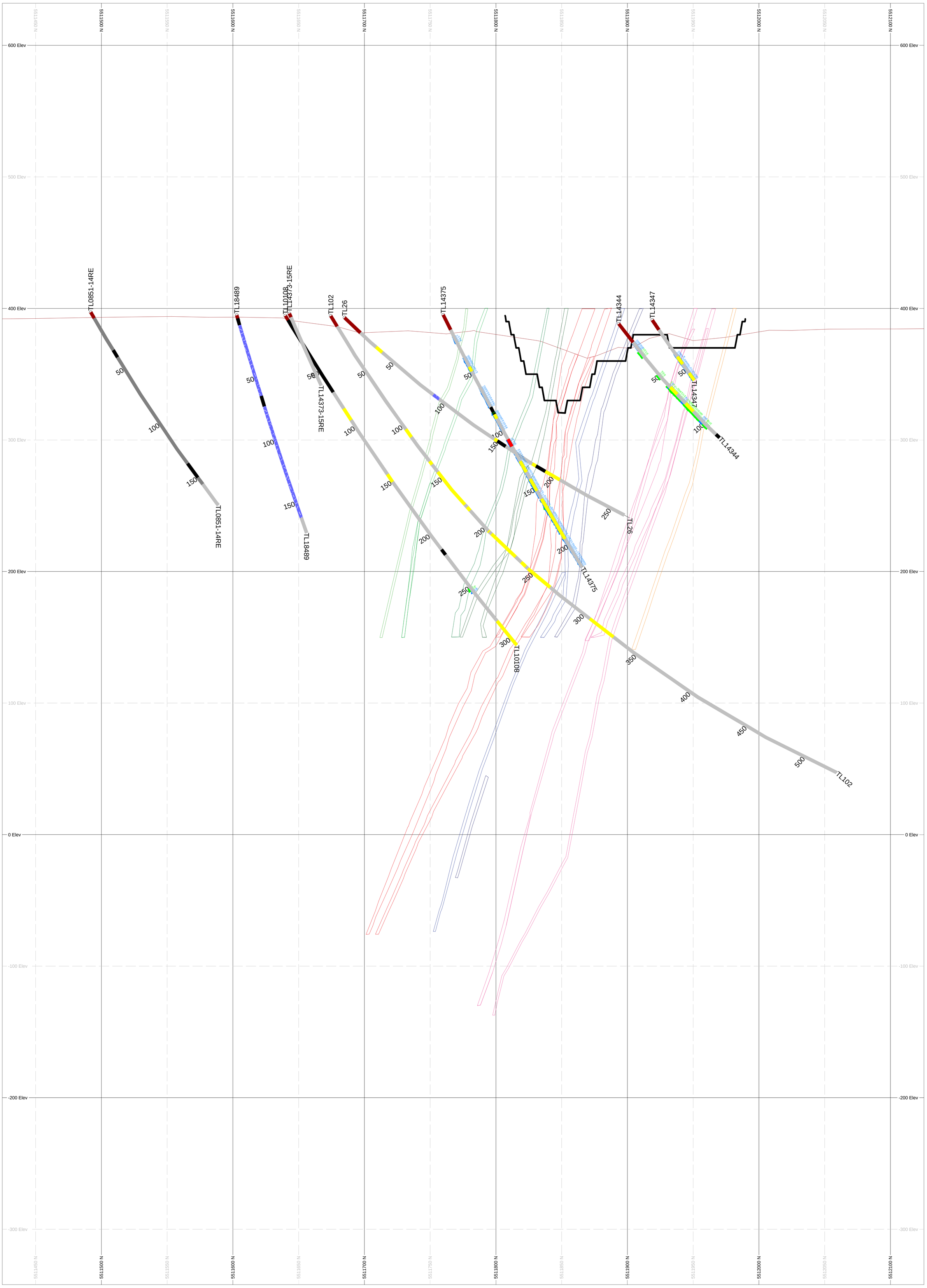
- QFP (Quartz Feldspar Porphyry)
- FZ (Fault Zone)
- BS (Biotite Schist)
- MD (Mafic Dyke)
- MSS (Muscovite Sericite Schist)
- OB (Overburden)
- QP (Quartz Porphyry)

TREASURY METALS Inc.

Goliath Gold Project	
527500	1:1000
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

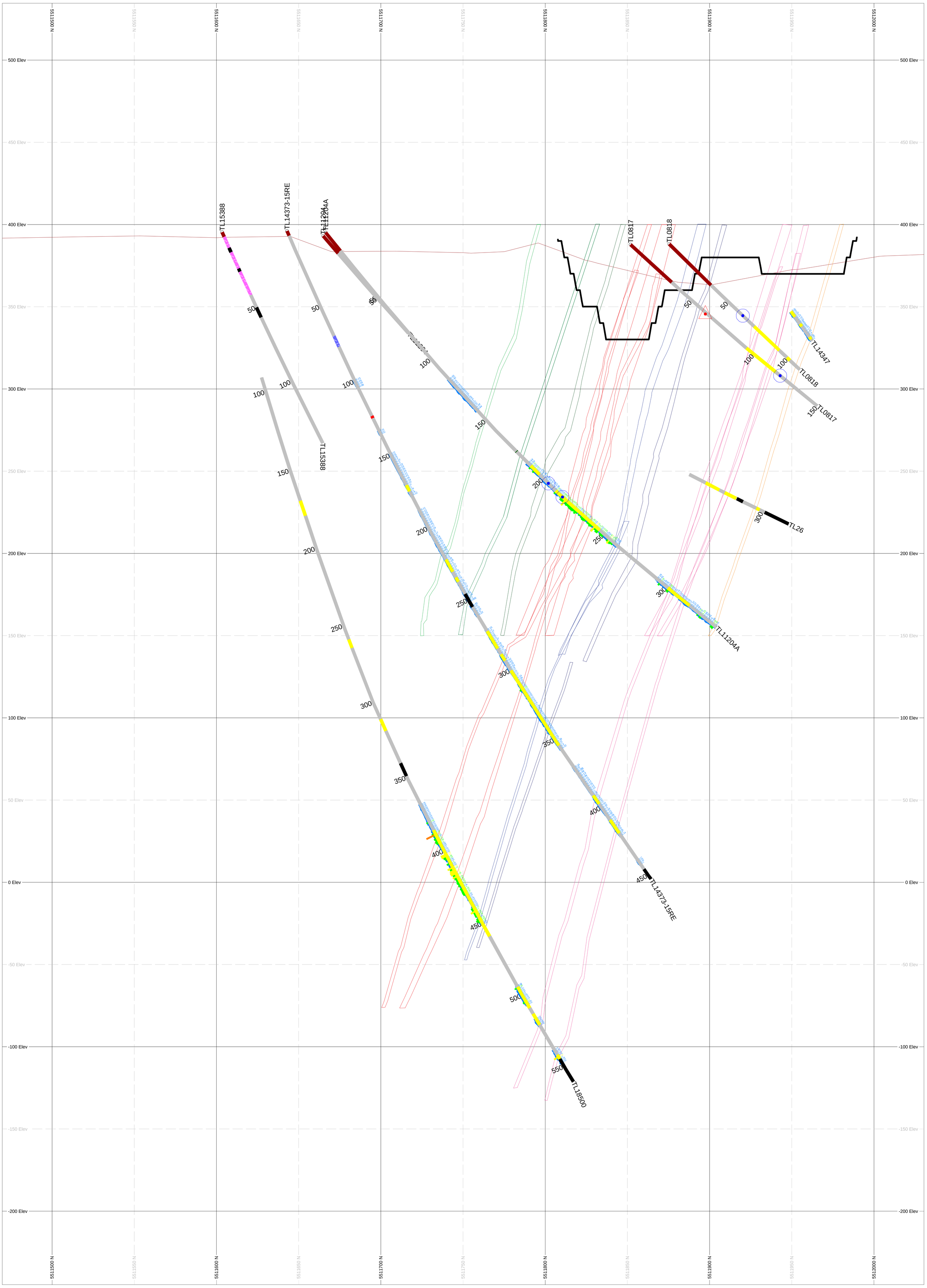
- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
- BS (Biotite Schist)
- D (Dyke)
- MD (Mafic Dyke)
- MSED (Metasediments)
- MSS (Muscovite Sericite Schist)
- MTVOL (Metavolcanics)
- OB (Overburden)
- QFP (Quartz Feldspar Porphyry)
- QP (Quartz Porphyry)
- FZ (Fault Zone)

TREASURY METALS Inc.

Goliath Gold Project	
527475	1:1250
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

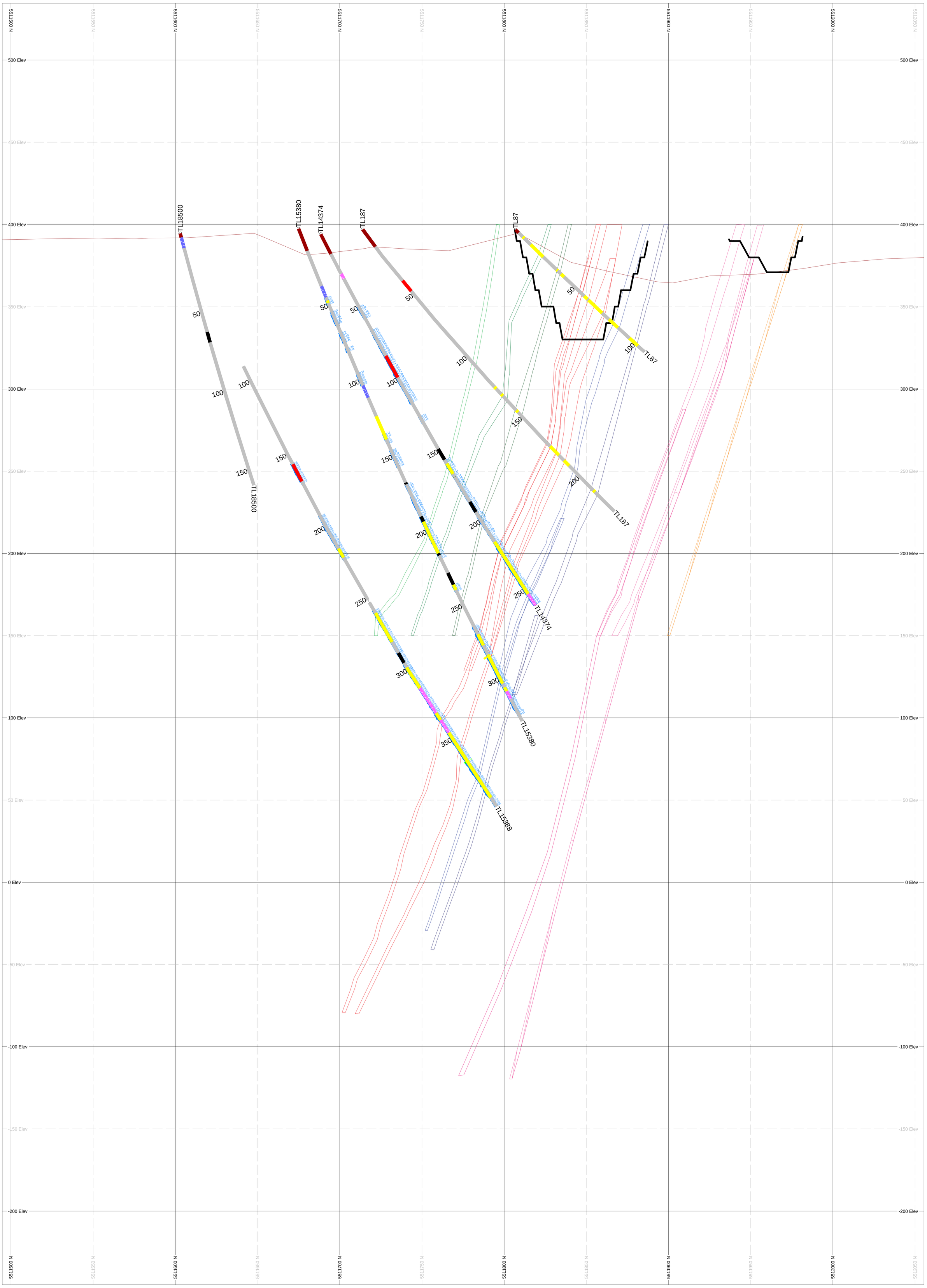
- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
- D (Dyke)
- MSED (Metasediments)
- MTVOL (Metavolcanics)
- QFP (Quartz Feldspar Porphyry)
- FZ (Fault Zone)
- BS (Biotite Schist)
- MD (Mafic Dyke)
- MSS (Muscovite Sericite Schist)
- OB (Overburden)
- QP (Quartz Porphyry)

TREASURY METALS Inc.

Goliath Gold Project	
527450	1:1000
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

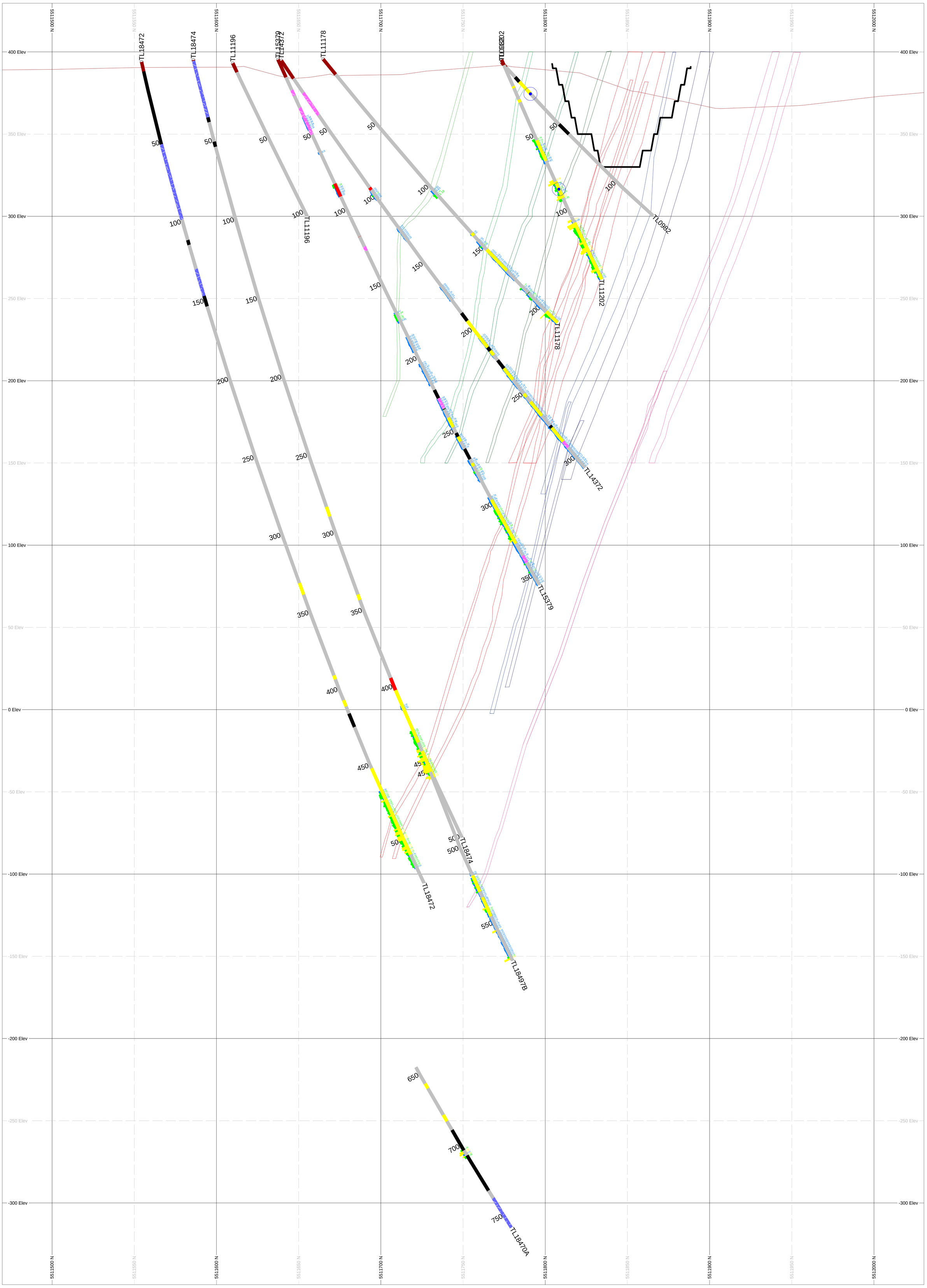
- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
- D (Dyke)
- MSED (Metasediments)
- MTVOL (Metavolcanics)
- QFP (Quartz Feldspar Porphyry)
- FZ (Fault Zone)
- BS (Biotite Schist)
- MD (Mafic Dyke)
- MSS (Muscovite Sericite Schist)
- OB (Overburden)
- QP (Quartz Porphyry)

TREASURY METALS Inc.

Goliath Gold Project	
527425	1:1000
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

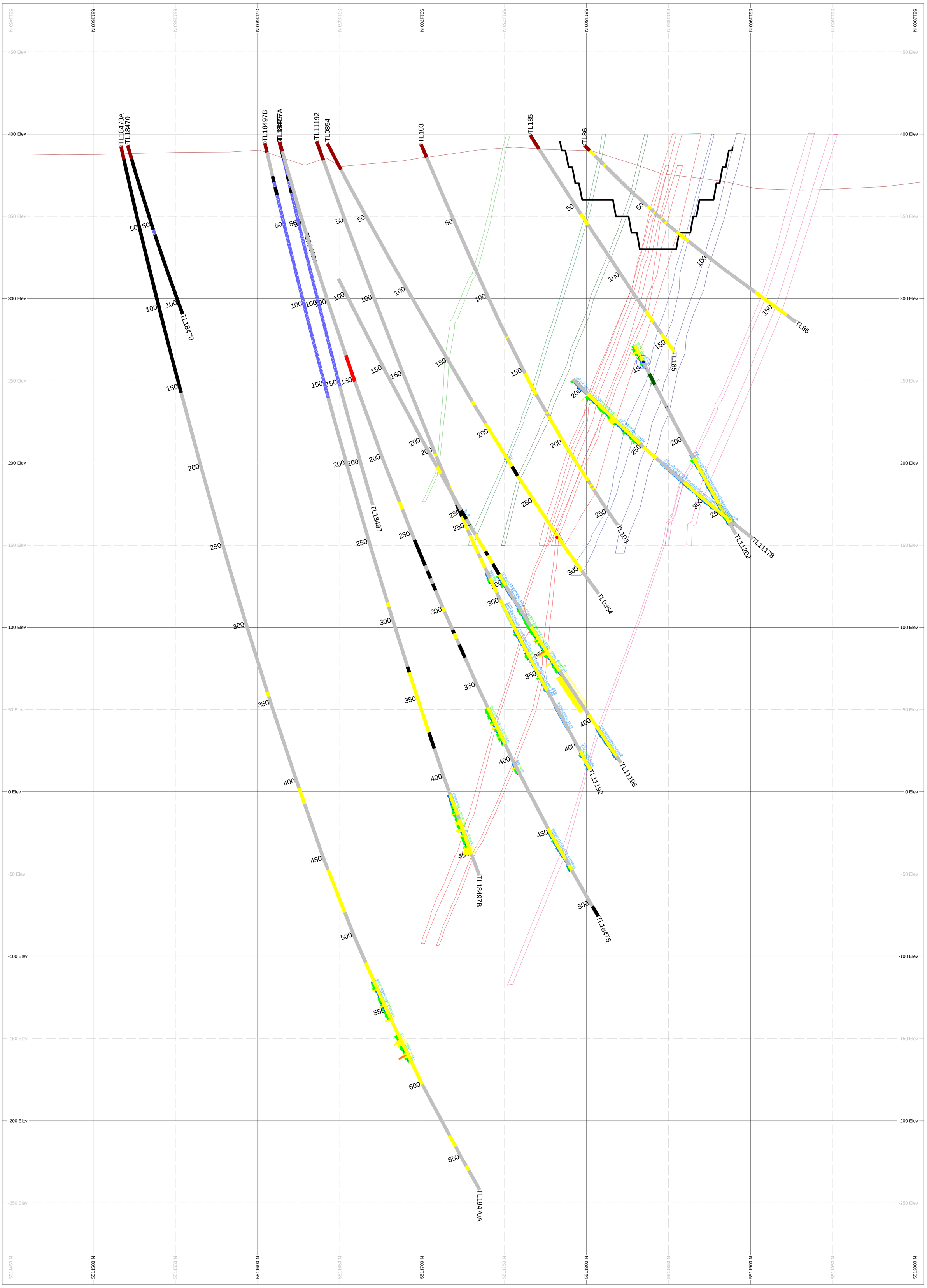
- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
- BS (Biotite Schist)
- D (Dyke)
- MD (Mafic Dyke)
- MSED (Metasediments)
- MSS (Muscovite Sericite Schist)
- MTVOL (Metavolcanics)
- OB (Overburden)
- QFP (Quartz Feldspar Porphyry)
- QP (Quartz Porphyry)
- FZ (Fault Zone)

TREASURY METALS Inc.

Goliath Gold Project	
527400	1:1000
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

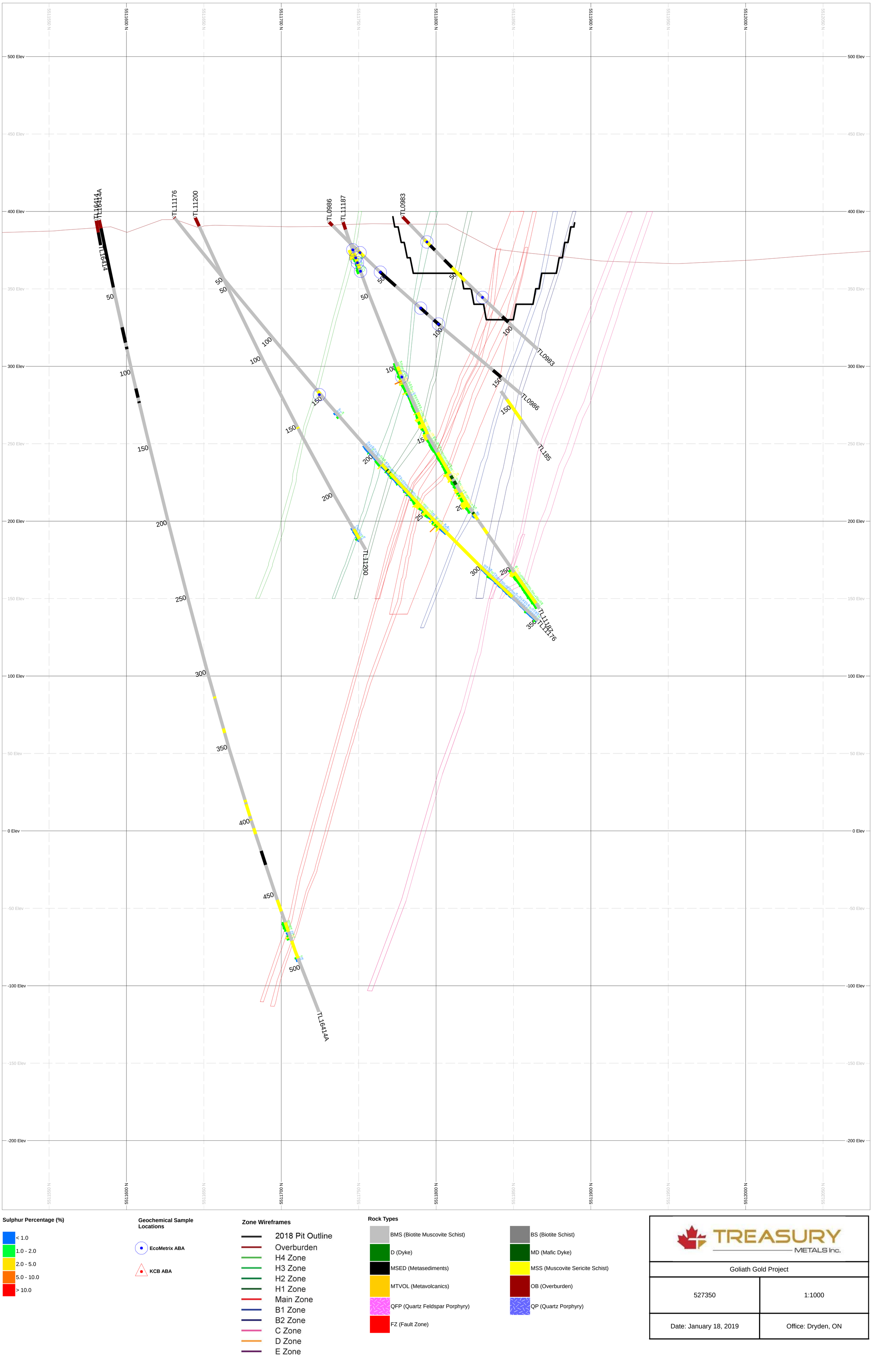
- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
- BS (Biotite Schist)
- D (Dyke)
- MD (Mafic Dyke)
- MSED (Metasediments)
- MSS (Muscovite Sericite Schist)
- MTVOL (Metavolcanics)
- OB (Overburden)
- QFP (Quartz Feldspar Porphyry)
- QP (Quartz Porphyry)
- FZ (Fault Zone)

TREASURY METALS Inc.

Goliath Gold Project	
527375	1:1000
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

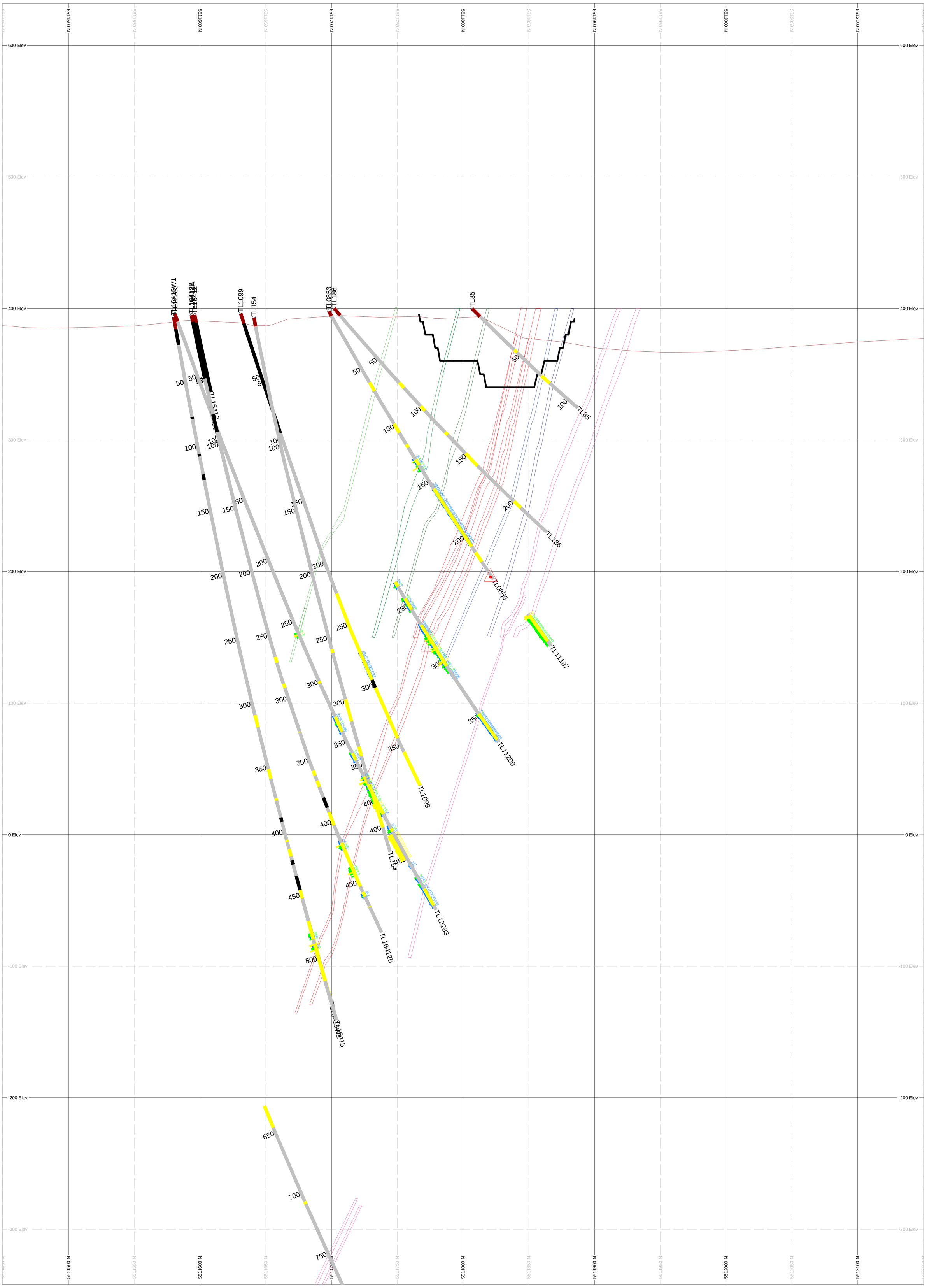
- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
- D (Dyke)
- MSED (Metasediments)
- MTVOL (Metavolcanics)
- QFP (Quartz Feldspar Porphyry)
- FZ (Fault Zone)
- BS (Biotite Schist)
- MD (Mafic Dyke)
- MSS (Muscovite Sericite Schist)
- OB (Overburden)
- QP (Quartz Porphyry)

TREASURY METALS Inc.

Goliath Gold Project	
527350	1:1000
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
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- MSED (Metasediments)
- MTVOL (Metavolcanics)
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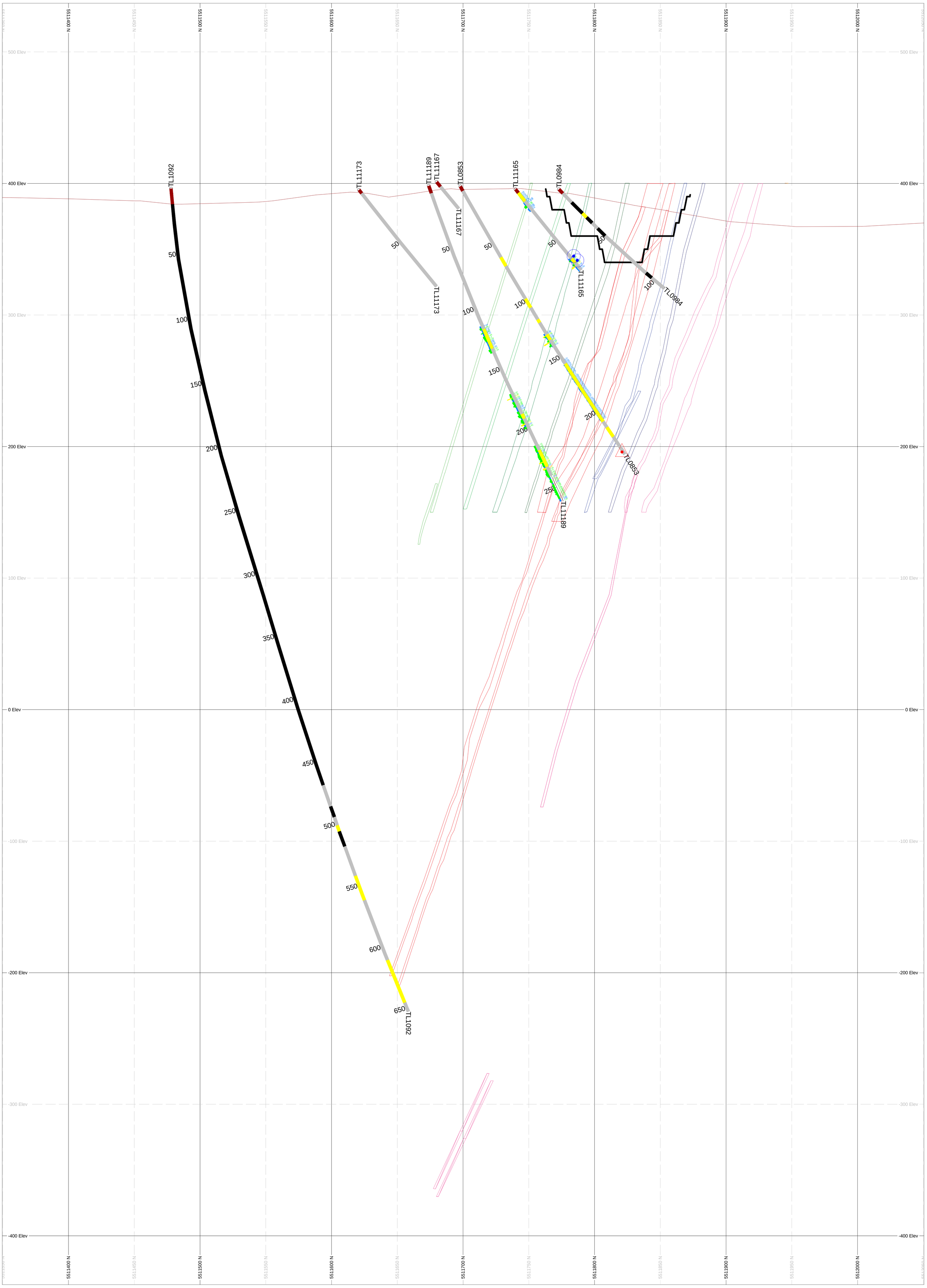
- FZ (Fault Zone)
- BS (Biotite Schist)
- MD (Mafic Dyke)
- MSS (Muscovite Sericite Schist)
- OB (Overburden)
- QP (Quartz Porphyry)

TREASURY METALS Inc.

Goliath Gold Project

527325	1:1250
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

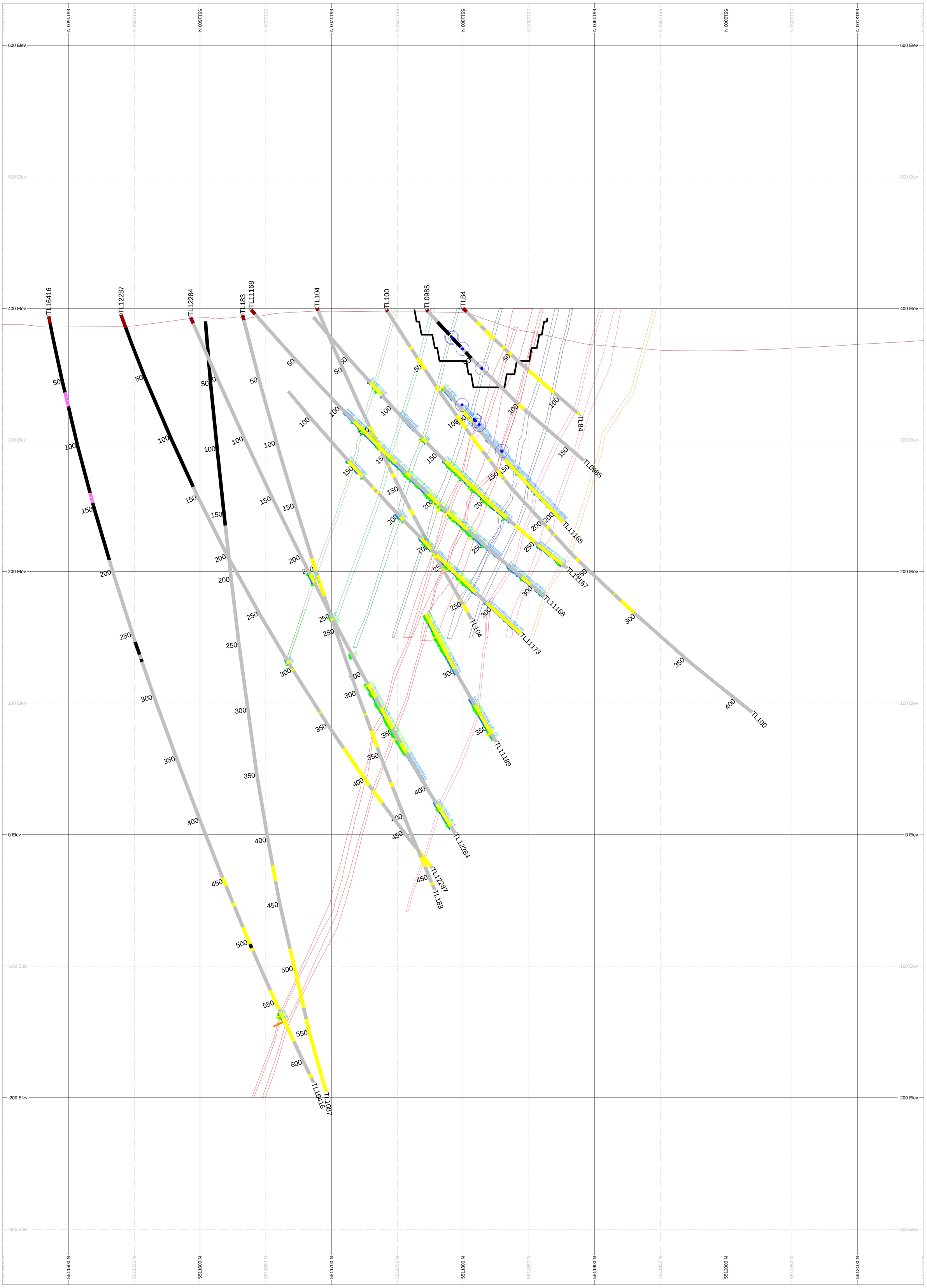
- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
- BS (Biotite Schist)
- D (Dyke)
- MD (Mafic Dyke)
- MSED (Metasediments)
- MSS (Muscovite Sericite Schist)
- MTVOL (Metavolcanics)
- OB (Overburden)
- QFP (Quartz Feldspar Porphyry)
- QP (Quartz Porphyry)
- FZ (Fault Zone)

TREASURY METALS Inc.

Goliath Gold Project	
527300	1:1250
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

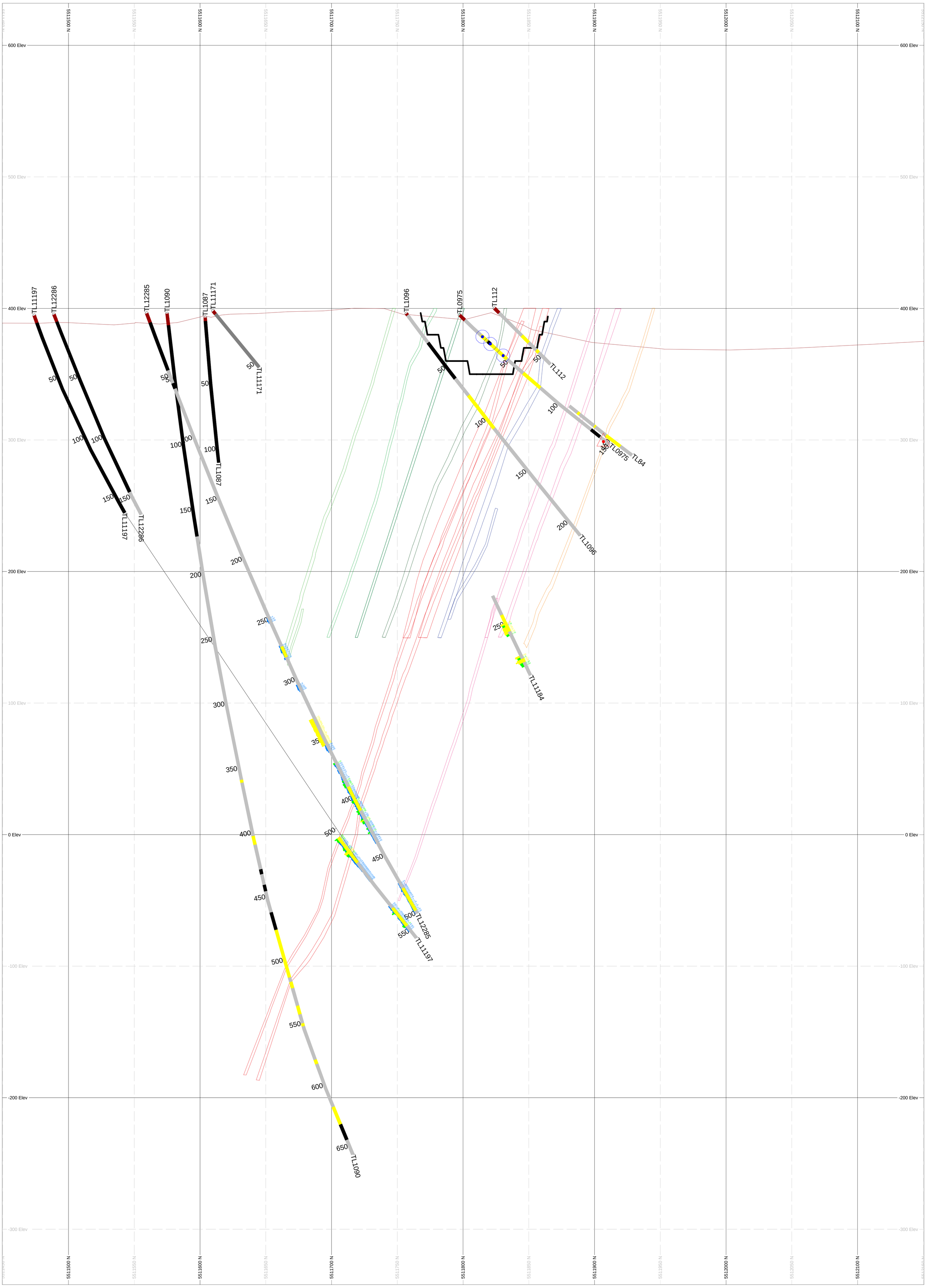
- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
- D (Dyke)
- MSED (Metasediments)
- MTVOL (Metavolcanics)
- QFP (Quartz Feldspar Porphyry)
- FZ (Fault Zone)
- BS (Biotite Schist)
- MD (Mafic Dyke)
- MSS (Muscovite Sericite Schist)
- OB (Overburden)
- QP (Quartz Porphyry)

TREASURY METALS Inc.

Goliath Gold Project	
527275	1:1250
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
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Rock Types

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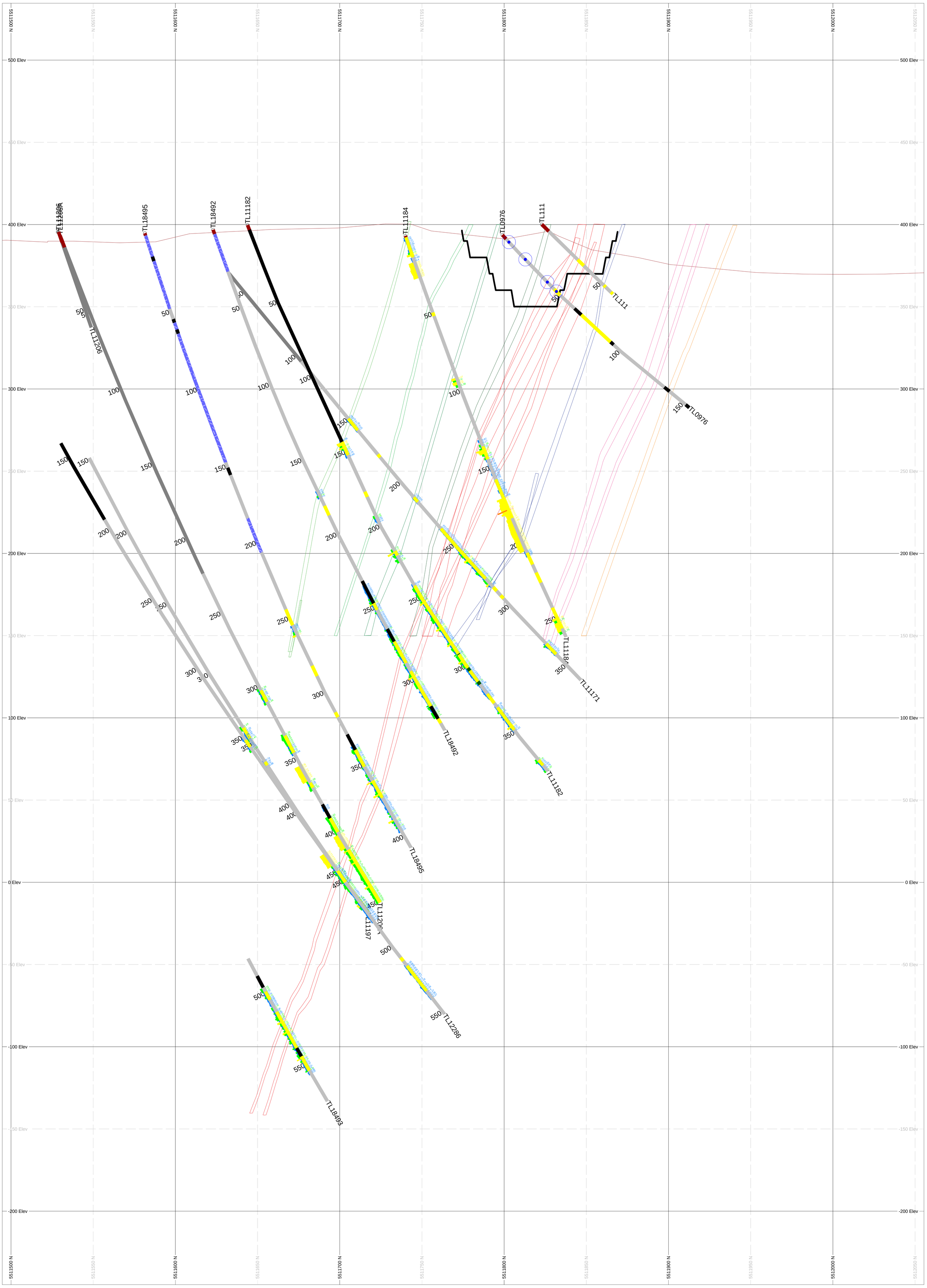
- MSED (Metasediments)
- MTVOL (Metavolcanics)
- QFP (Quartz Feldspar Porphyry)
- FZ (Fault Zone)
- BS (Biotite Schist)
- MD (Mafic Dyke)
- MSS (Muscovite Sericite Schist)
- OB (Overburden)
- QP (Quartz Porphyry)

TREASURY METALS Inc.

Goliath Gold Project	
527250	1:1250
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

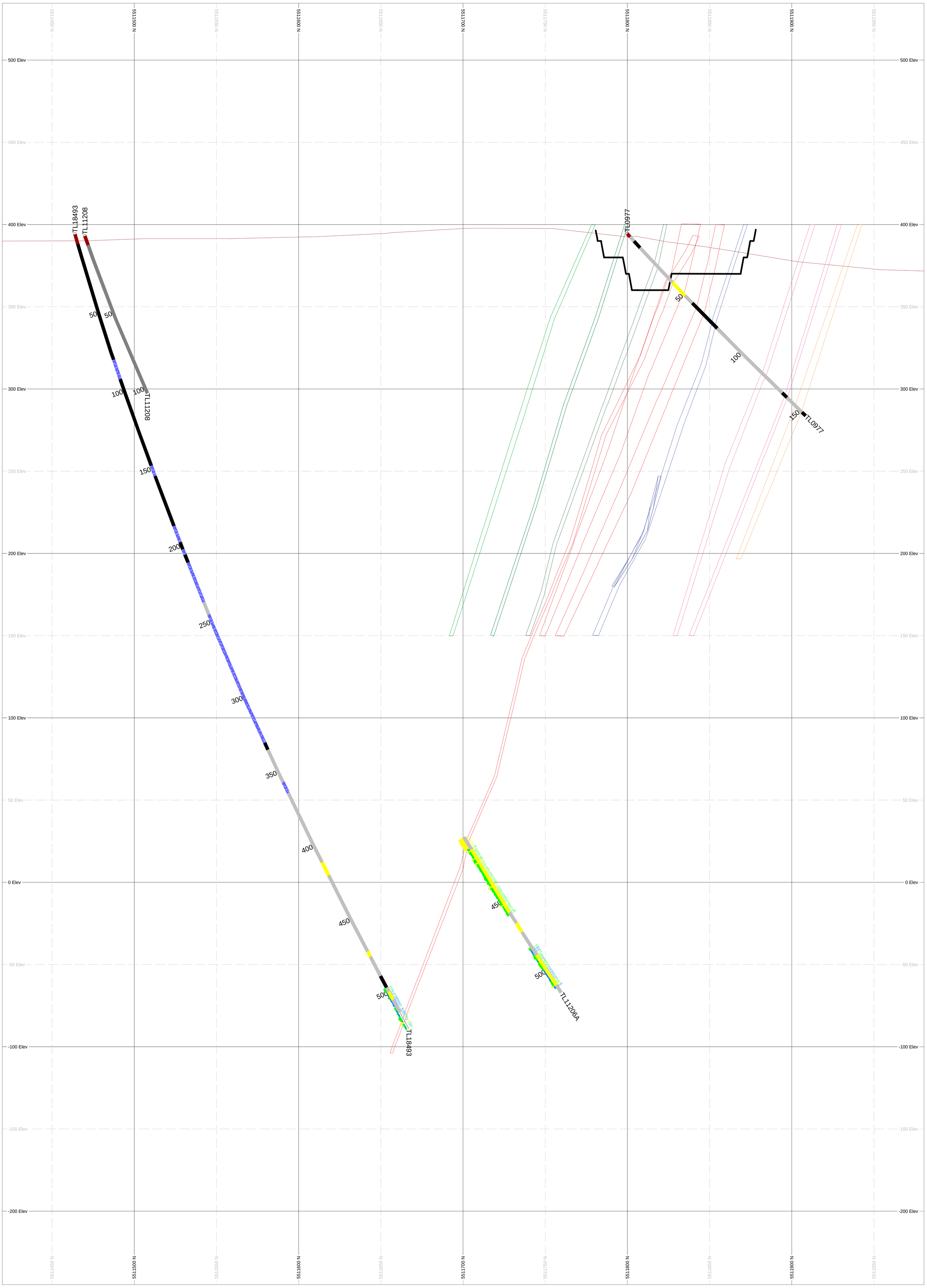
- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
- BS (Biotite Schist)
- D (Dyke)
- MD (Mafic Dyke)
- MSED (Metasediments)
- MSS (Muscovite Sericite Schist)
- MTVOL (Metavolcanics)
- OB (Overburden)
- QFP (Quartz Feldspar Porphyry)
- QP (Quartz Porphyry)
- FZ (Fault Zone)

TREASURY METALS Inc.

Goliath Gold Project	
527225	1:1000
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

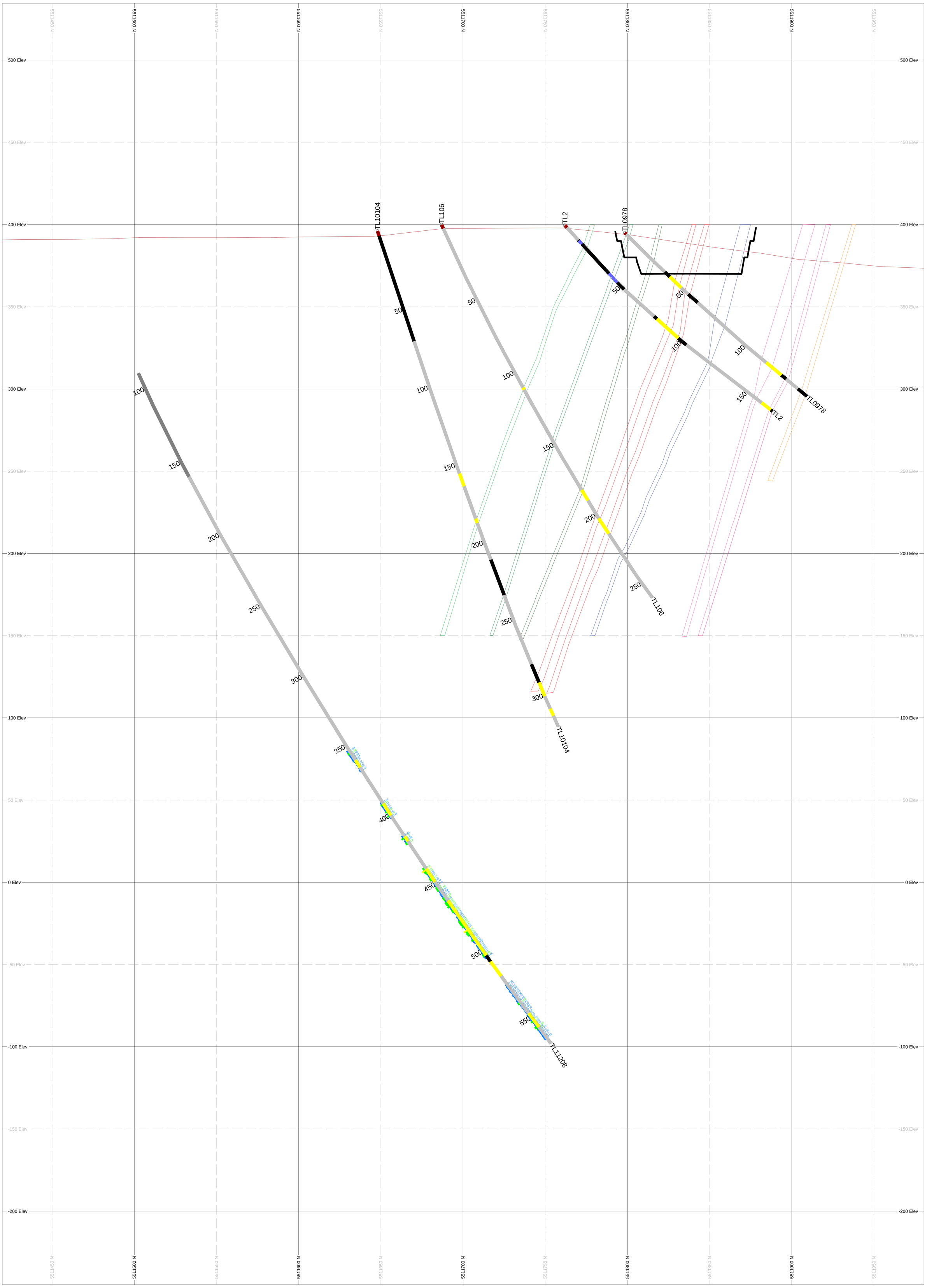
- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
- D (Dyke)
- MSED (Metasediments)
- MTVOL (Metavolcanics)
- QFP (Quartz Feldspar Porphyry)
- FZ (Fault Zone)
- BS (Biotite Schist)
- MD (Mafic Dyke)
- MSS (Muscovite Sericite Schist)
- OB (Overburden)
- QP (Quartz Porphyry)

TREASURY METALS Inc.

Goliath Gold Project	
527200	1:1000
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

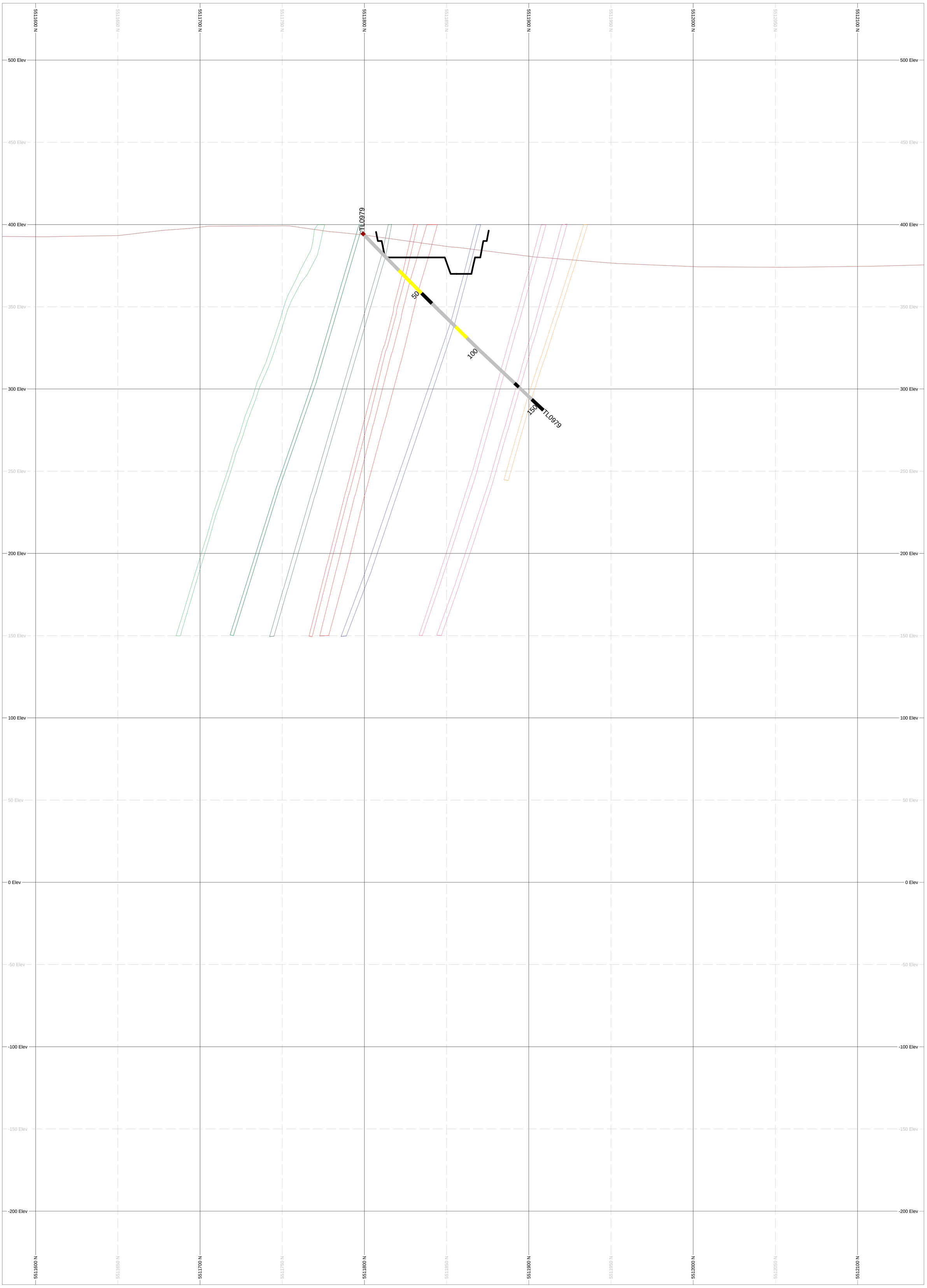
- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
- D (Dyke)
- MSED (Metasediments)
- MTVOL (Metavolcanics)
- QFP (Quartz Feldspar Porphyry)
- FZ (Fault Zone)
- BS (Biotite Schist)
- MD (Mafic Dyke)
- MSS (Muscovite Sericite Schist)
- OB (Overburden)
- QP (Quartz Porphyry)

TREASURY METALS Inc.

Goliath Gold Project	
527175	1:1000
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

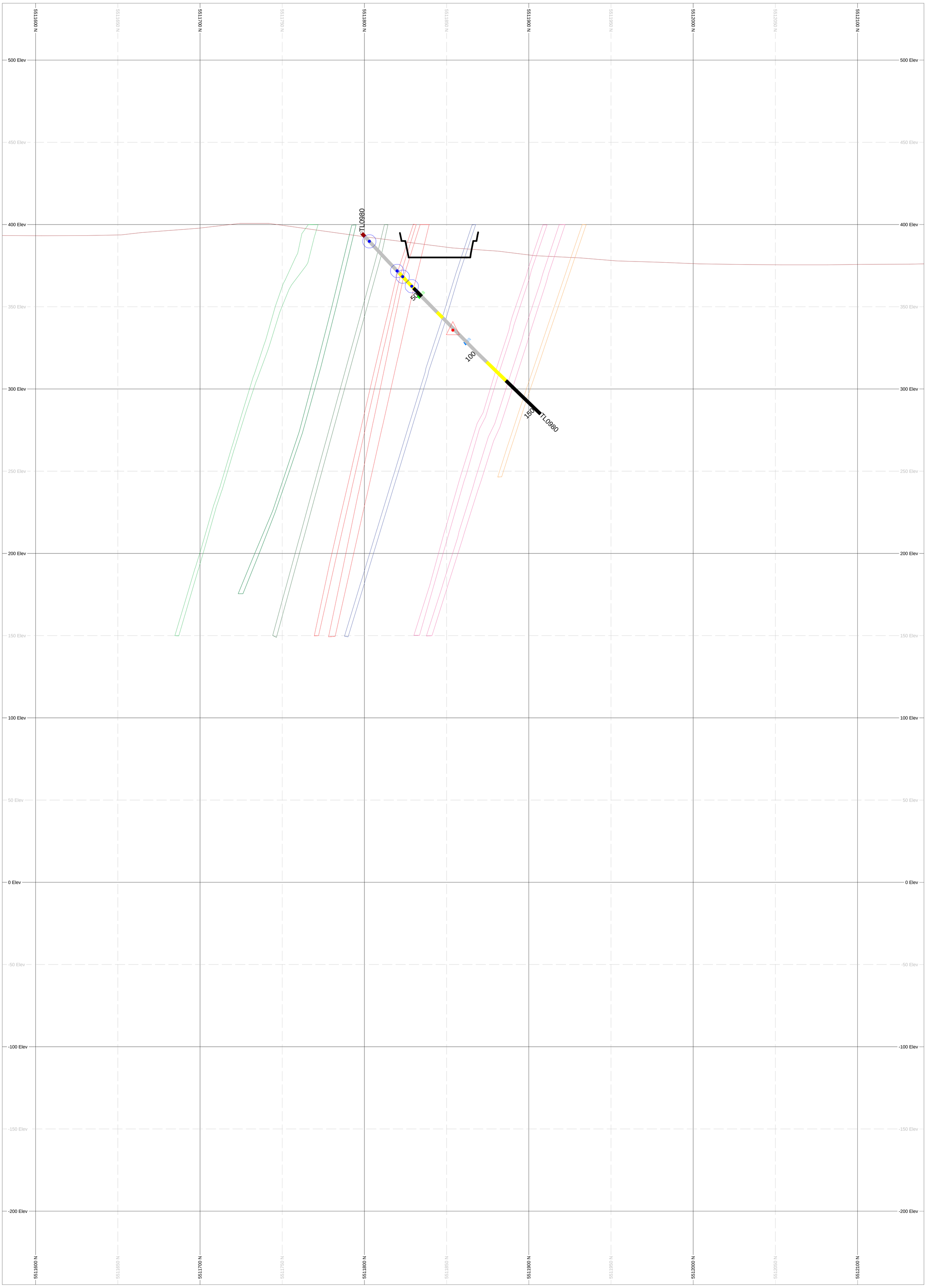
- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
- D (Dyke)
- MSED (Metasediments)
- MTVOL (Metavolcanics)
- QFP (Quartz Feldspar Porphyry)
- FZ (Fault Zone)
- BS (Biotite Schist)
- MD (Mafic Dyke)
- MSS (Muscovite Sericite Schist)
- OB (Overburden)
- QP (Quartz Porphyry)

TREASURY METALS Inc.

Goliath Gold Project	
527150	1:1000
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

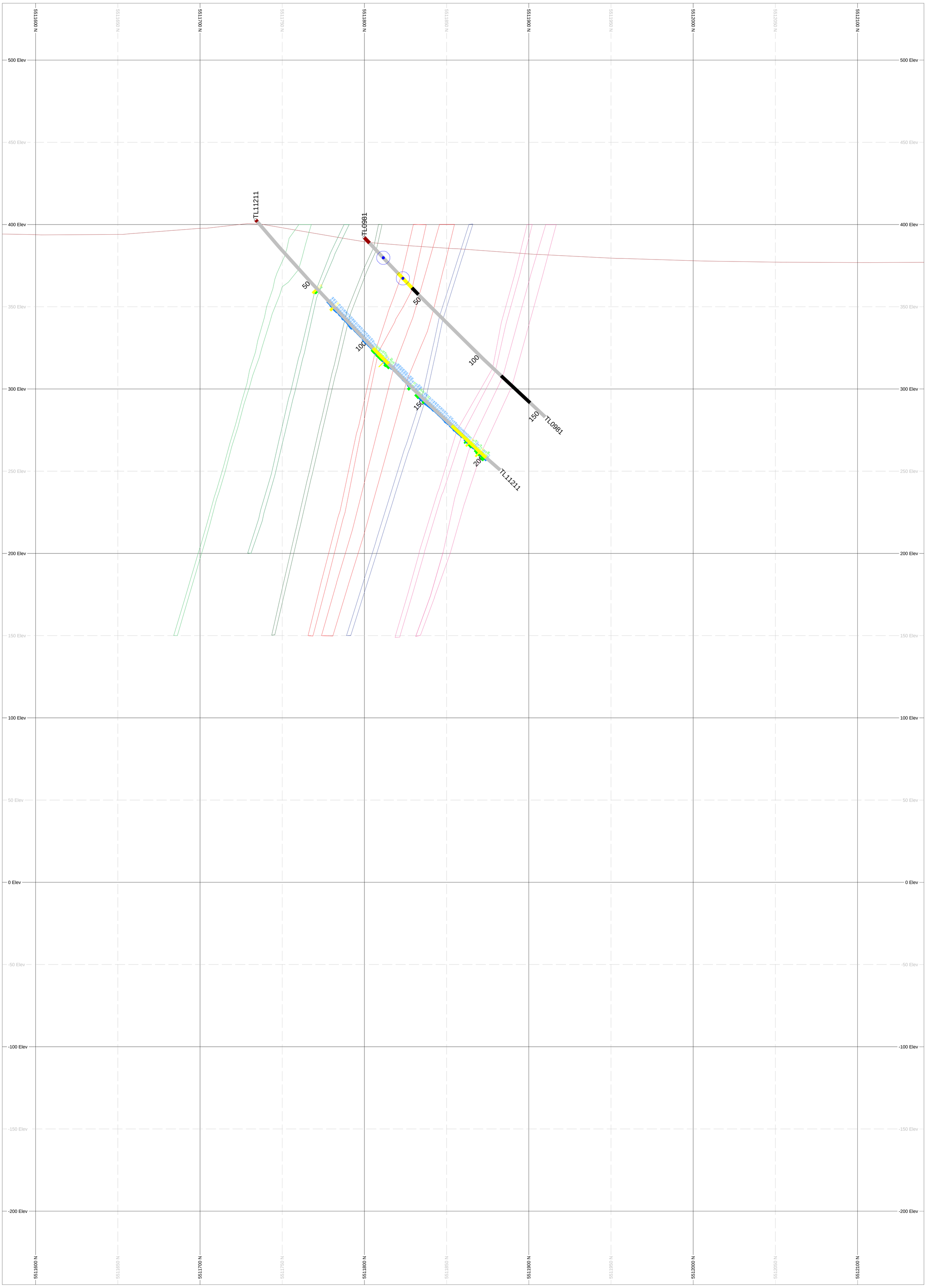
- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
- D (Dyke)
- MSED (Metasediments)
- MTVOL (Metavolcanics)
- QFP (Quartz Feldspar Porphyry)
- FZ (Fault Zone)
- BS (Biotite Schist)
- MD (Mafic Dyke)
- MSS (Muscovite Sericite Schist)
- OB (Overburden)
- QP (Quartz Porphyry)

TREASURY METALS Inc.

Goliath Gold Project	
527125	1:1000
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

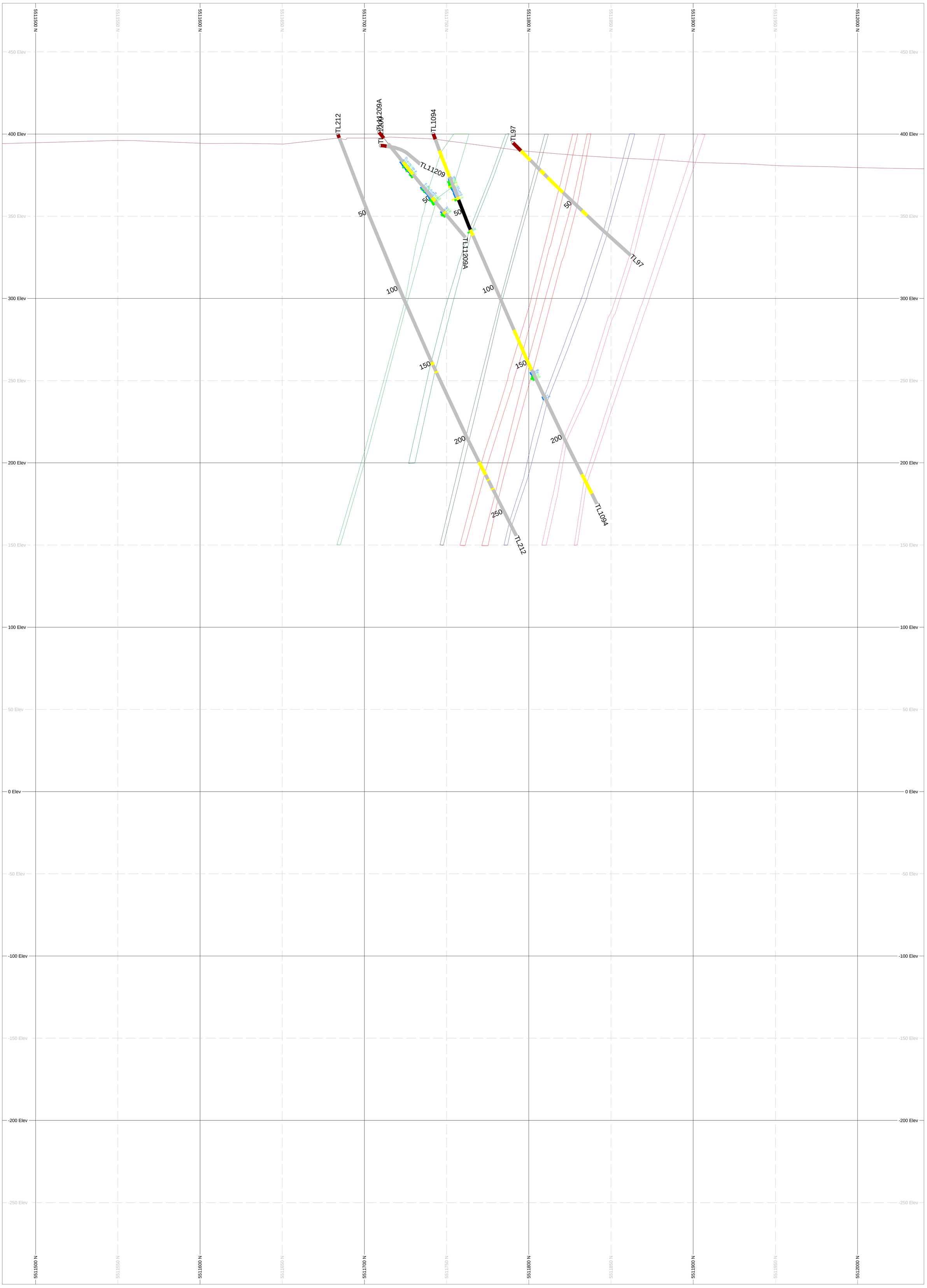
- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
- D (Dyke)
- MSED (Metasediments)
- MTVOL (Metavolcanics)
- QFP (Quartz Feldspar Porphyry)
- FZ (Fault Zone)
- BS (Biotite Schist)
- MD (Mafic Dyke)
- MSS (Muscovite Sericite Schist)
- OB (Overburden)
- QP (Quartz Porphyry)

TREASURY METALS Inc.

Goliath Gold Project	
527100	1:1000
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

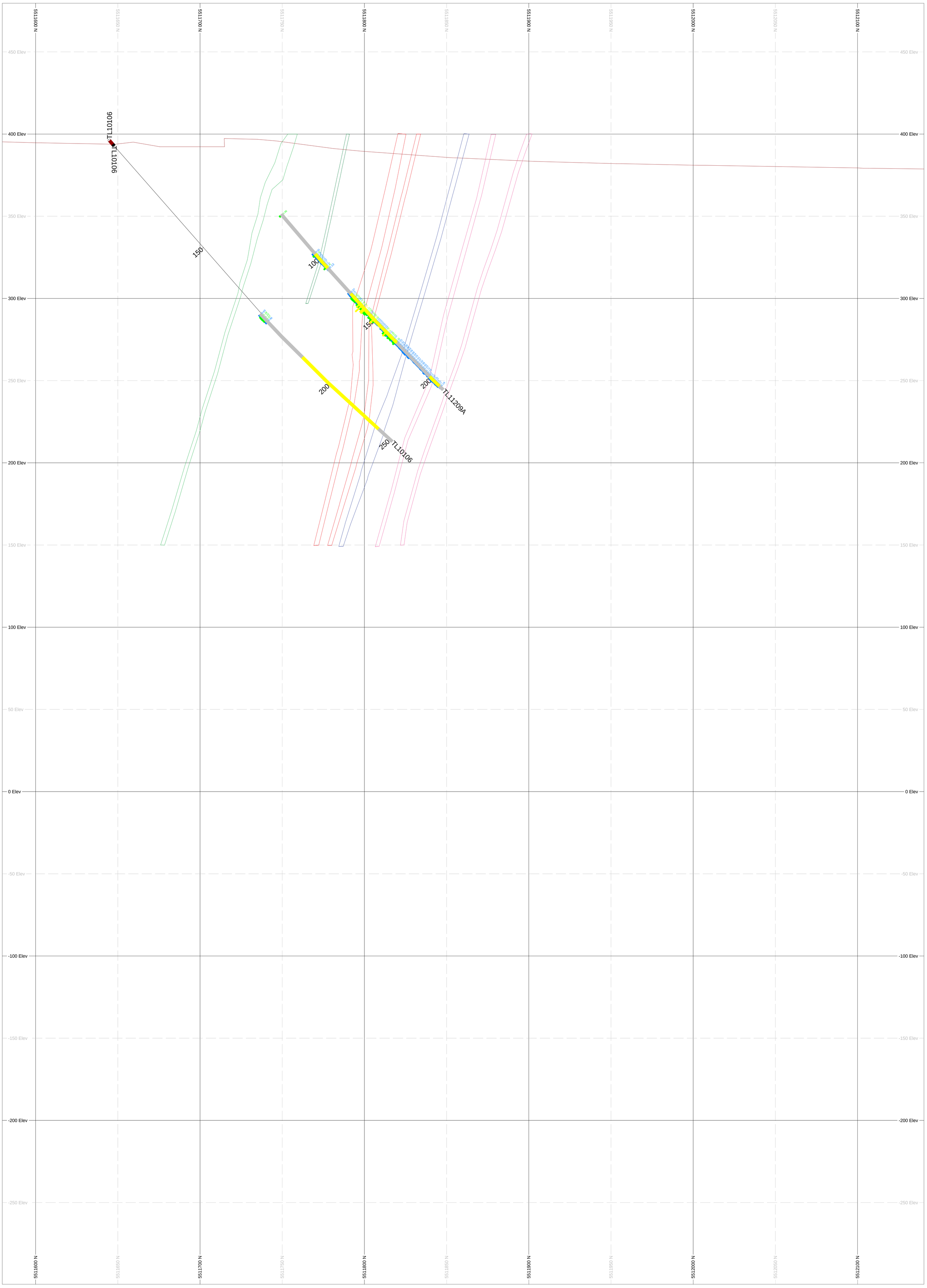
- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
- BS (Biotite Schist)
- D (Dyke)
- MD (Mafic Dyke)
- MSED (Metasediments)
- MSS (Muscovite Sericite Schist)
- MTVOL (Metavolcanics)
- OB (Overburden)
- QFP (Quartz Feldspar Porphyry)
- QP (Quartz Porphyry)
- FZ (Fault Zone)

TREASURY METALS Inc.

Goliath Gold Project	
527075	1:1000
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

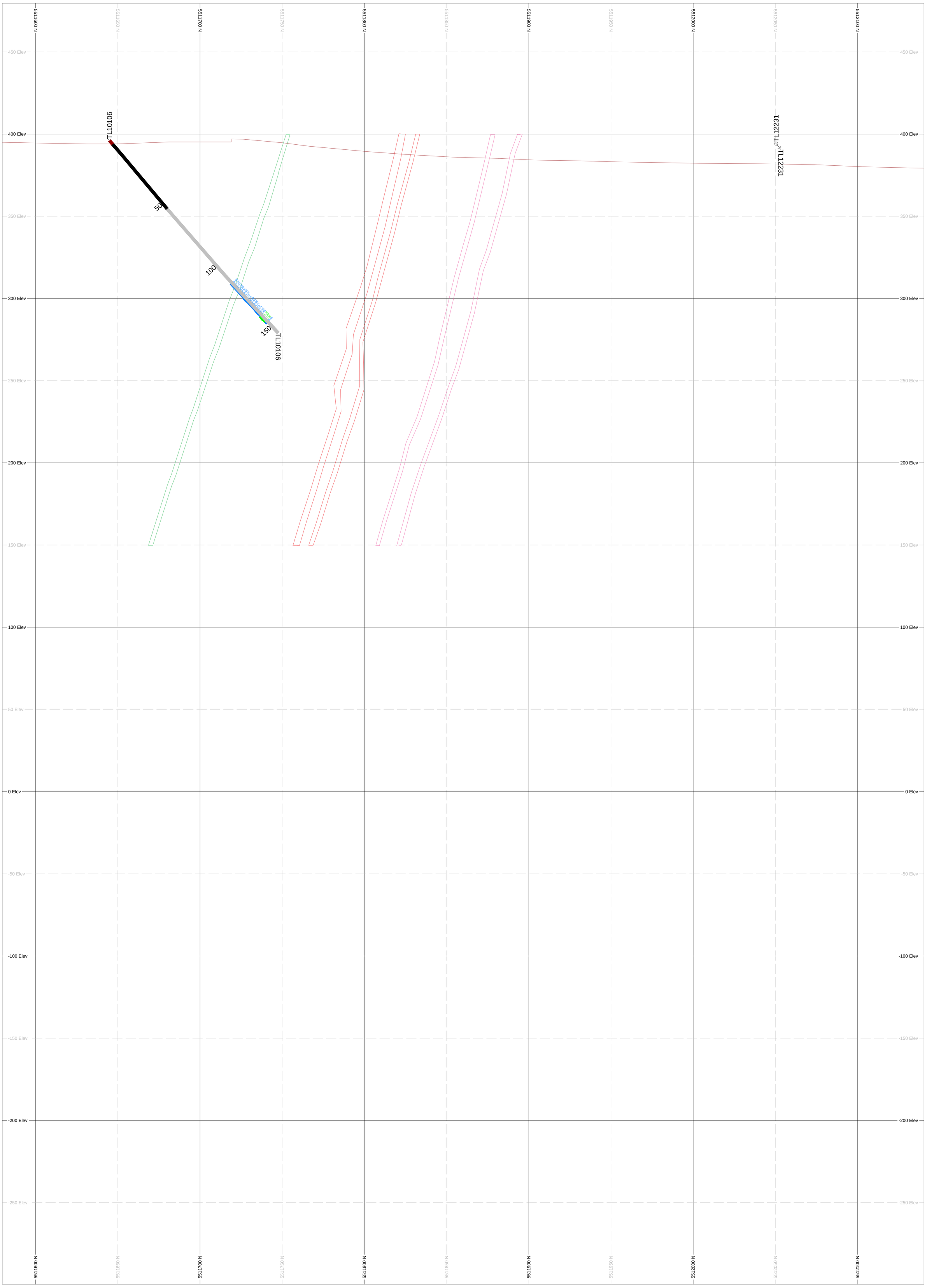
- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
- BS (Biotite Schist)
- D (Dyke)
- MD (Mafic Dyke)
- MSED (Metasediments)
- MSS (Muscovite Sericite Schist)
- MTVOL (Metavolcanics)
- OB (Overburden)
- QFP (Quartz Feldspar Porphyry)
- QP (Quartz Porphyry)
- FZ (Fault Zone)

TREASURY METALS Inc.

Goliath Gold Project	
527050	1:1000
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

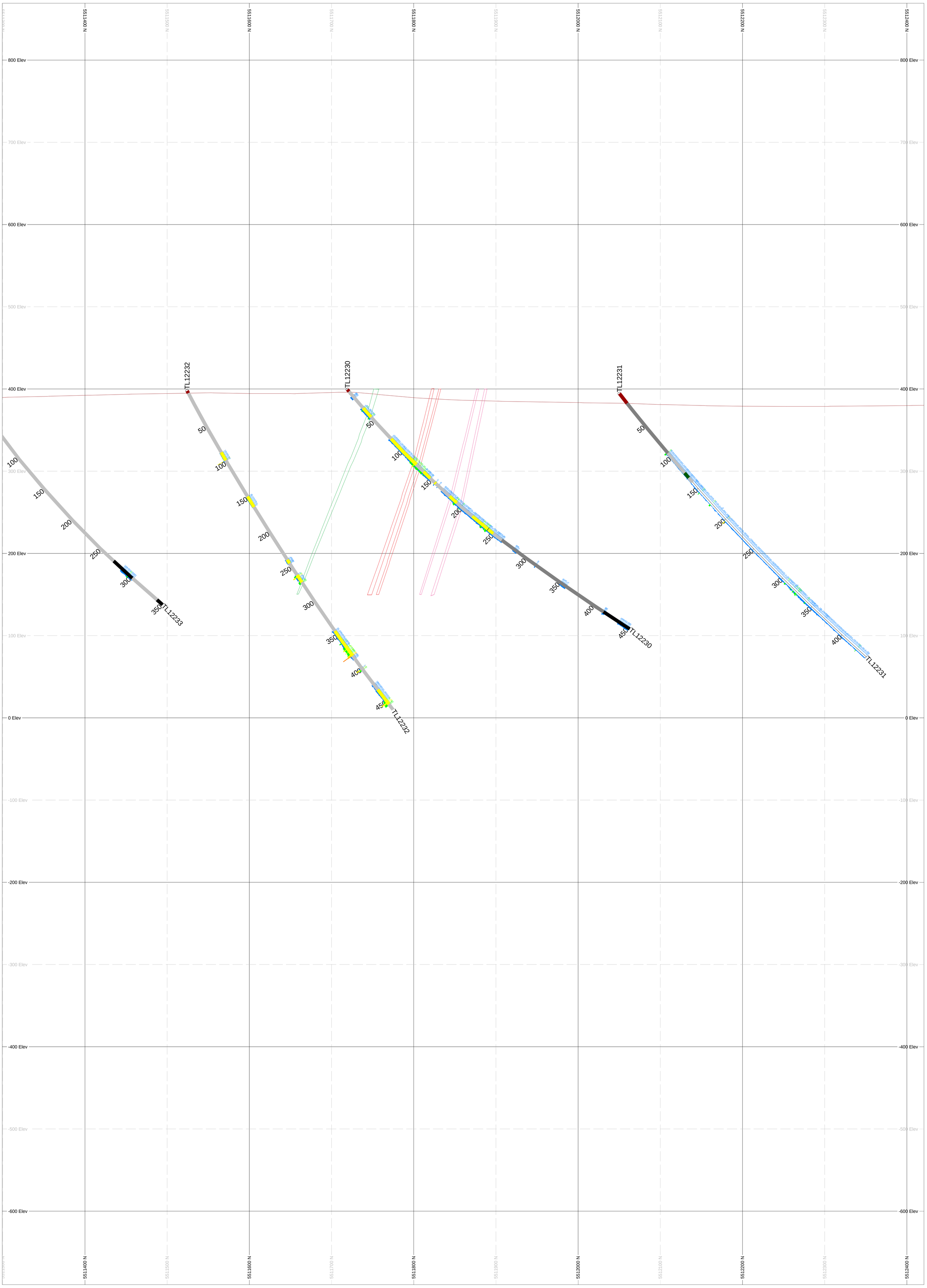
- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
- D (Dyke)
- MSED (Metasediments)
- MTVOL (Metavolcanics)
- QFP (Quartz Feldspar Porphyry)
- FZ (Fault Zone)
- BS (Biotite Schist)
- MD (Mafic Dyke)
- MSS (Muscovite Sericite Schist)
- OB (Overburden)
- QP (Quartz Porphyry)

TREASURY METALS Inc.

Goliath Gold Project	
527025	1:1000
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
- D (Dyke)
- MSED (Metasediments)
- MTVOL (Metavolcanics)
- QFP (Quartz Feldspar Porphyry)
- FZ (Fault Zone)
- BS (Biotite Schist)
- MD (Mafic Dyke)
- MSS (Muscovite Sericite Schist)
- OB (Overburden)
- QP (Quartz Porphyry)

TREASURY METALS Inc.

Goliath Gold Project	
527000	1:2000
Date: January 18, 2019	Office: Dryden, ON

Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

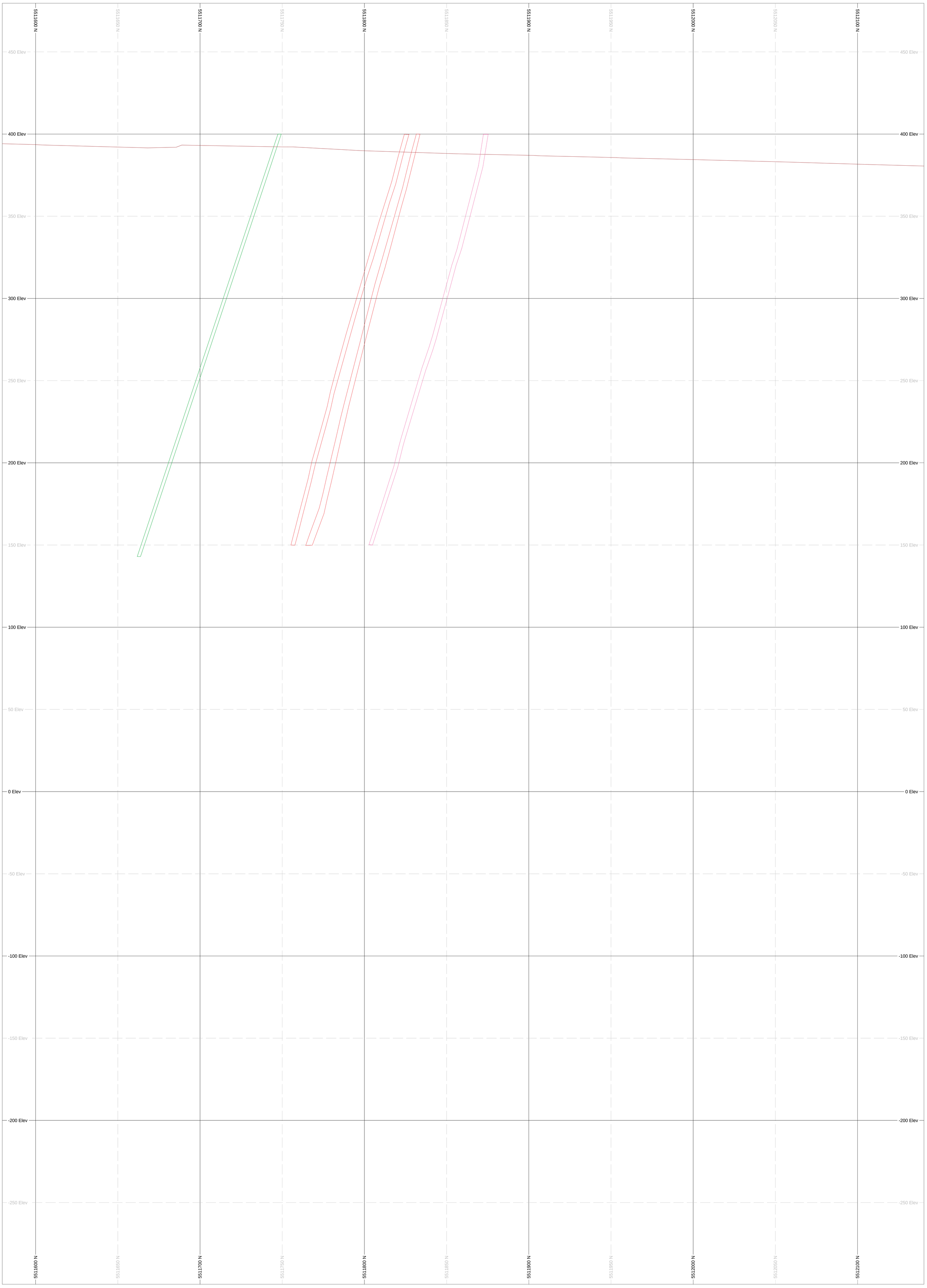
- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
- BS (Biotite Schist)
- D (Dyke)
- MD (Mafic Dyke)
- MSED (Metasediments)
- MSS (Muscovite Sericite Schist)
- MTVOL (Metavolcanics)
- OB (Overburden)
- QFP (Quartz Feldspar Porphyry)
- QP (Quartz Porphyry)
- FZ (Fault Zone)

TREASURY METALS Inc.

Goliath Gold Project	
526975	1:1000
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
- BS (Biotite Schist)
- D (Dyke)
- MD (Mafic Dyke)
- MSED (Metasediments)
- MSS (Muscovite Sericite Schist)
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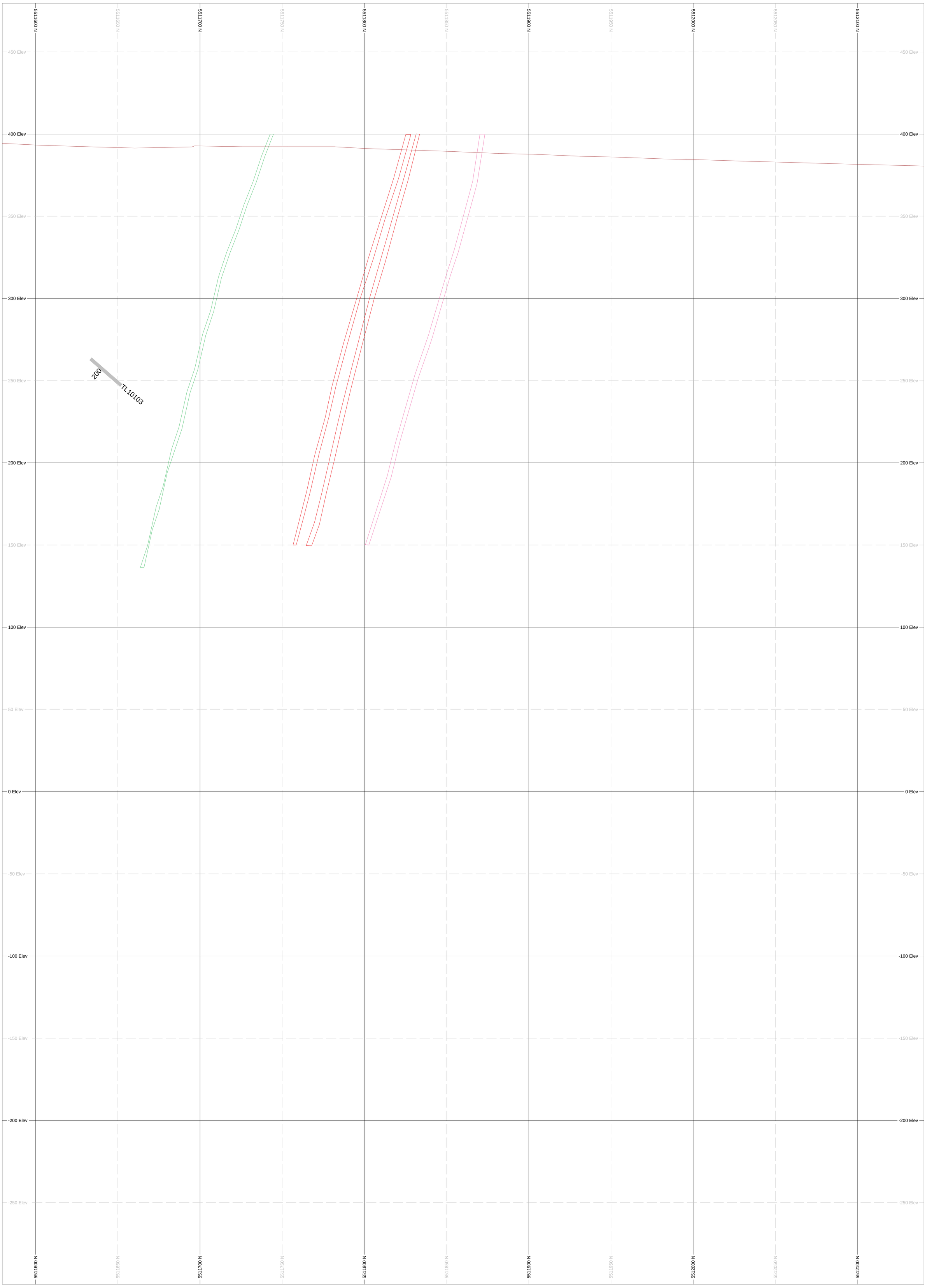
- QFP (Quartz Feldspar Porphyry)
- QP (Quartz Porphyry)
- FZ (Fault Zone)

TREASURY METALS Inc.

Goliath Gold Project	
526950	1:1000
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
- BS (Biotite Schist)
- D (Dyke)
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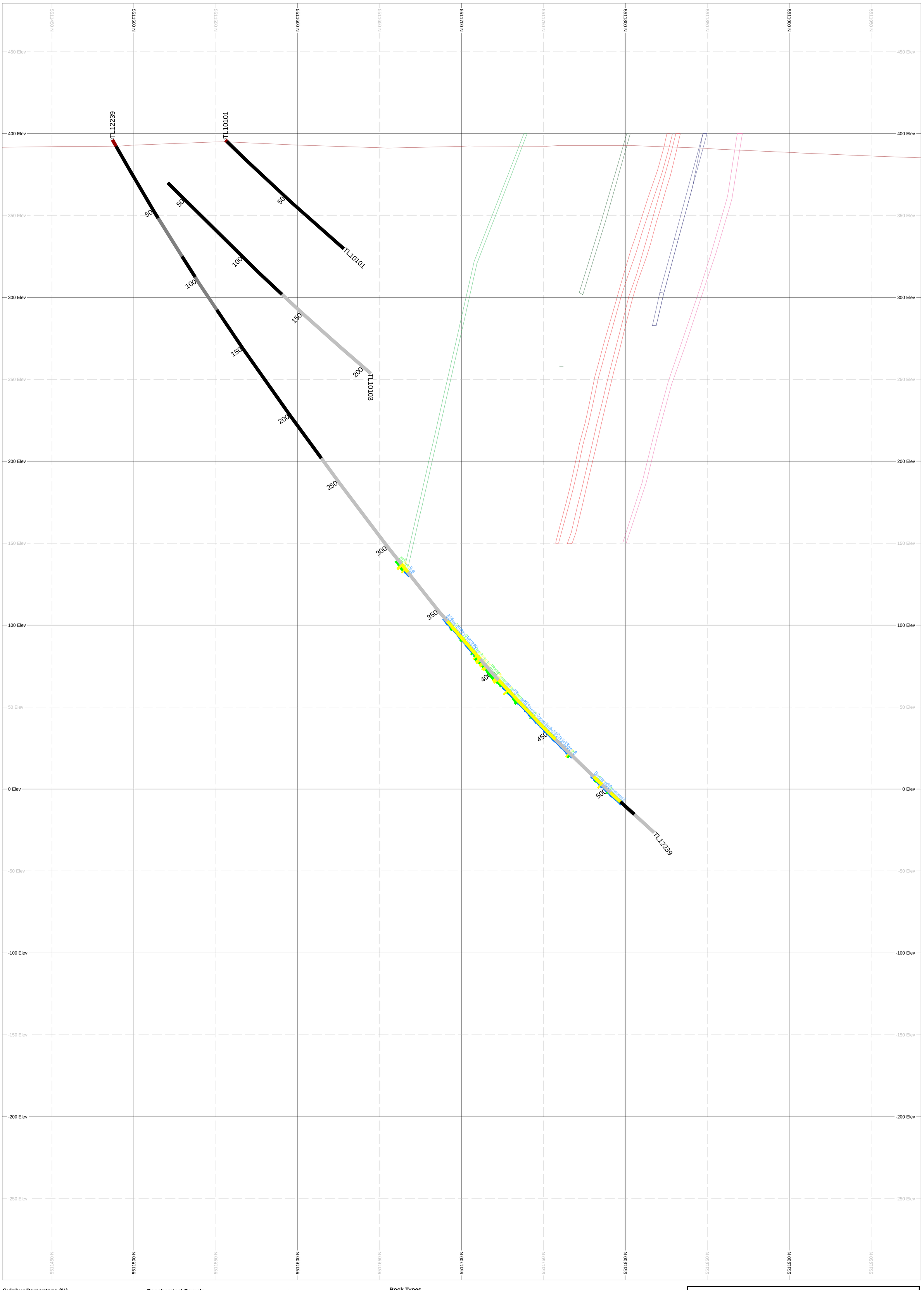
- MSED (Metasediments)
- MSS (Muscovite Sericite Schist)
- MTVOL (Metavolcanics)
- OB (Overburden)
- QFP (Quartz Feldspar Porphyry)
- QP (Quartz Porphyry)
- FZ (Fault Zone)

TREASURY METALS Inc.

Goliath Gold Project	
526925	1:1000
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

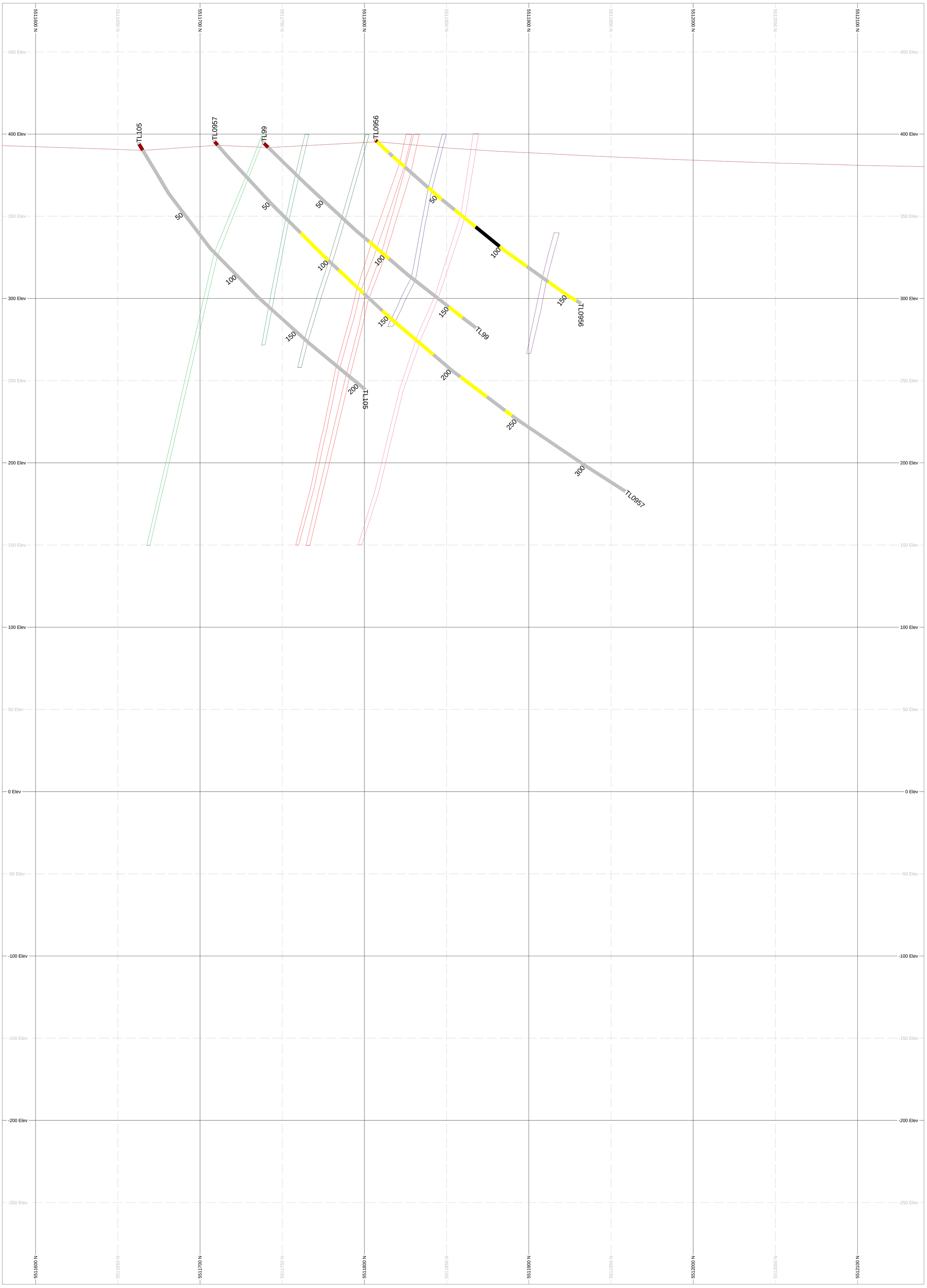
- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
- BS (Biotite Schist)
- D (Dyke)
- MD (Mafic Dyke)
- MSED (Metasediments)
- MSS (Muscovite Sericite Schist)
- MTVOL (Metavolcanics)
- OB (Overburden)
- QFP (Quartz Feldspar Porphyry)
- QP (Quartz Porphyry)
- FZ (Fault Zone)

TREASURY METALS Inc.

Goliath Gold Project	
526900	1:1000
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

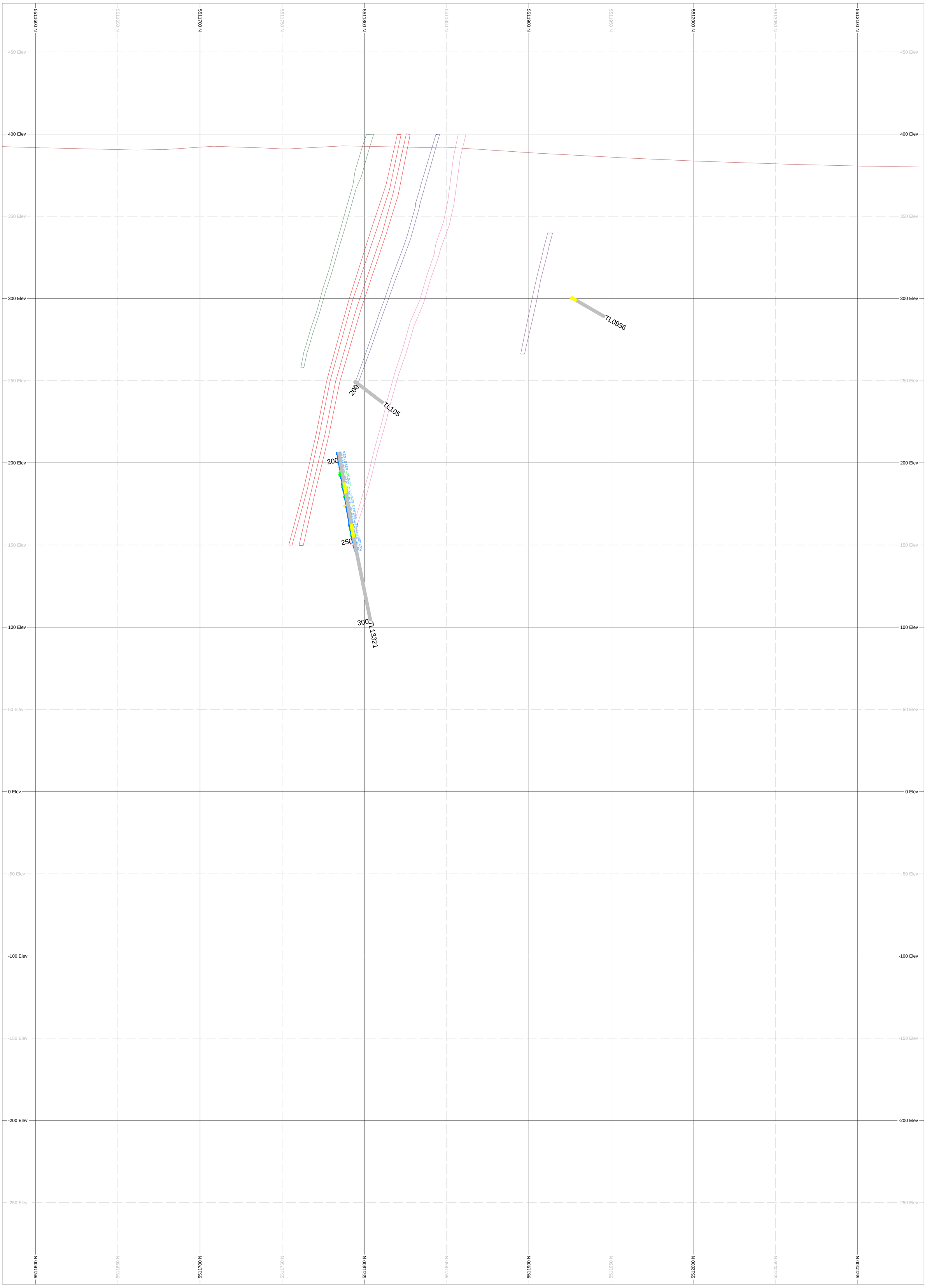
- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
- BS (Biotite Schist)
- D (Dyke)
- MD (Mafic Dyke)
- MSED (Metasediments)
- MSS (Muscovite Sericite Schist)
- MTVOL (Metavolcanics)
- OB (Overburden)
- QFP (Quartz Feldspar Porphyry)
- QP (Quartz Porphyry)
- FZ (Fault Zone)

TREASURY METALS Inc.

Goliath Gold Project	
526875	1:1000
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

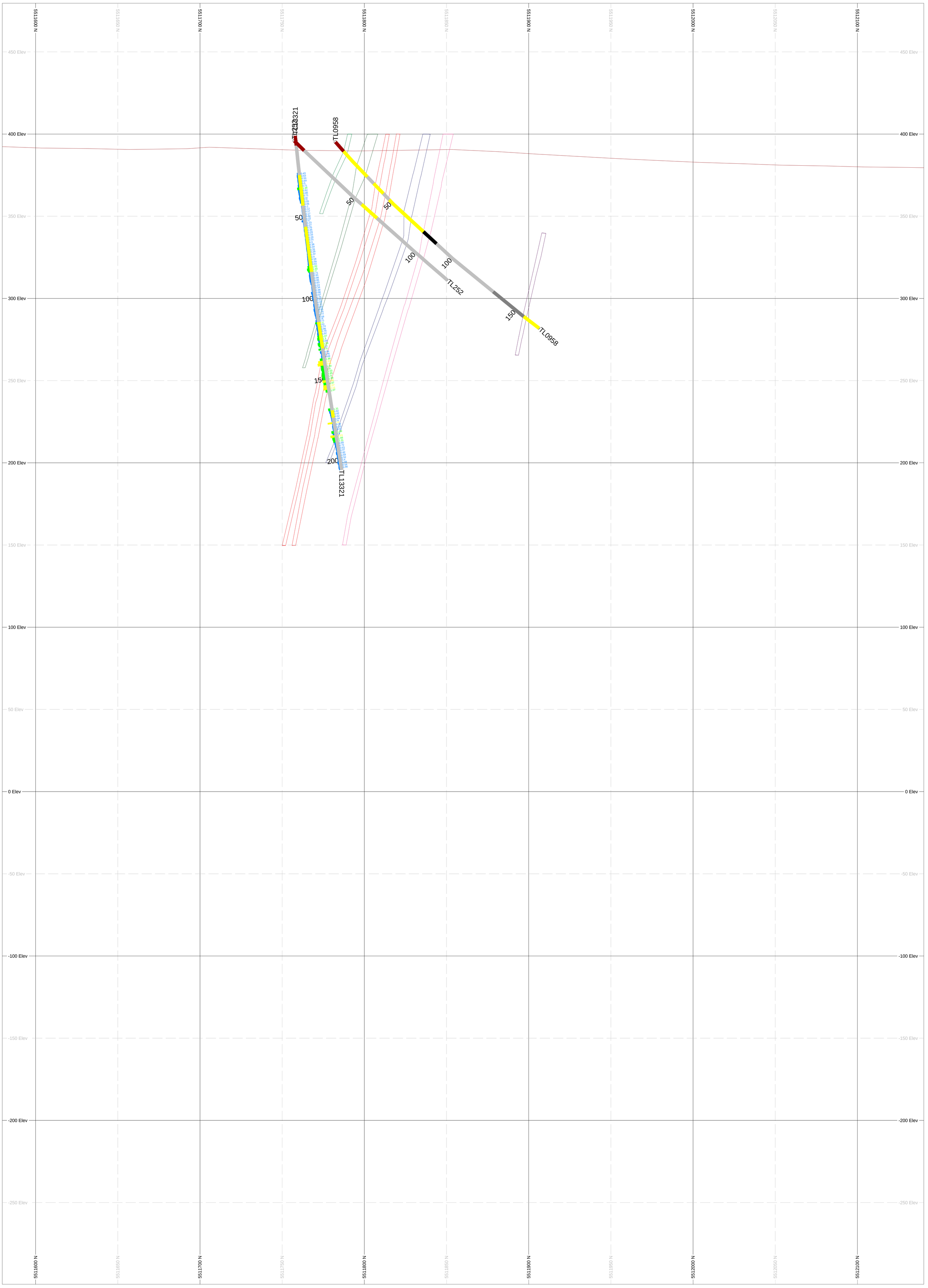
- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
- BS (Biotite Schist)
- D (Dyke)
- MD (Mafic Dyke)
- MSED (Metasediments)
- MSS (Muscovite Sericite Schist)
- MTVOL (Metavolcanics)
- OB (Overburden)
- QFP (Quartz Feldspar Porphyry)
- QP (Quartz Porphyry)
- FZ (Fault Zone)

TREASURY METALS Inc.

Goliath Gold Project	
526850	1:1000
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
- BS (Biotite Schist)
- D (Dyke)
- MD (Mafic Dyke)
- MSED (Metasediments)
- MSS (Muscovite Sericite Schist)
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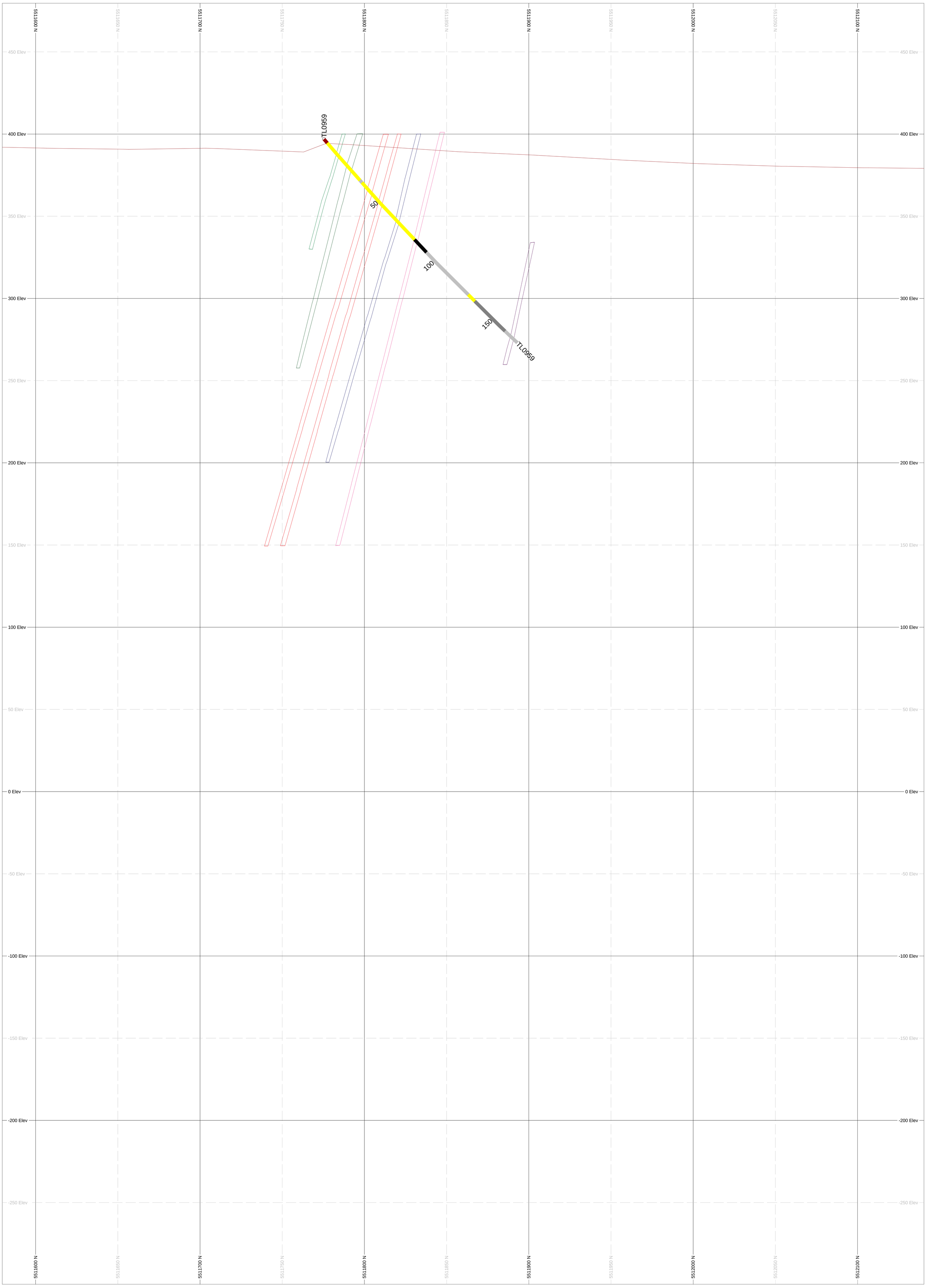
- OB (Overburden)
- QFP (Quartz Feldspar Porphyry)
- QP (Quartz Porphyry)
- FZ (Fault Zone)

TREASURY METALS Inc.

Goliath Gold Project	
526825	1:1000
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

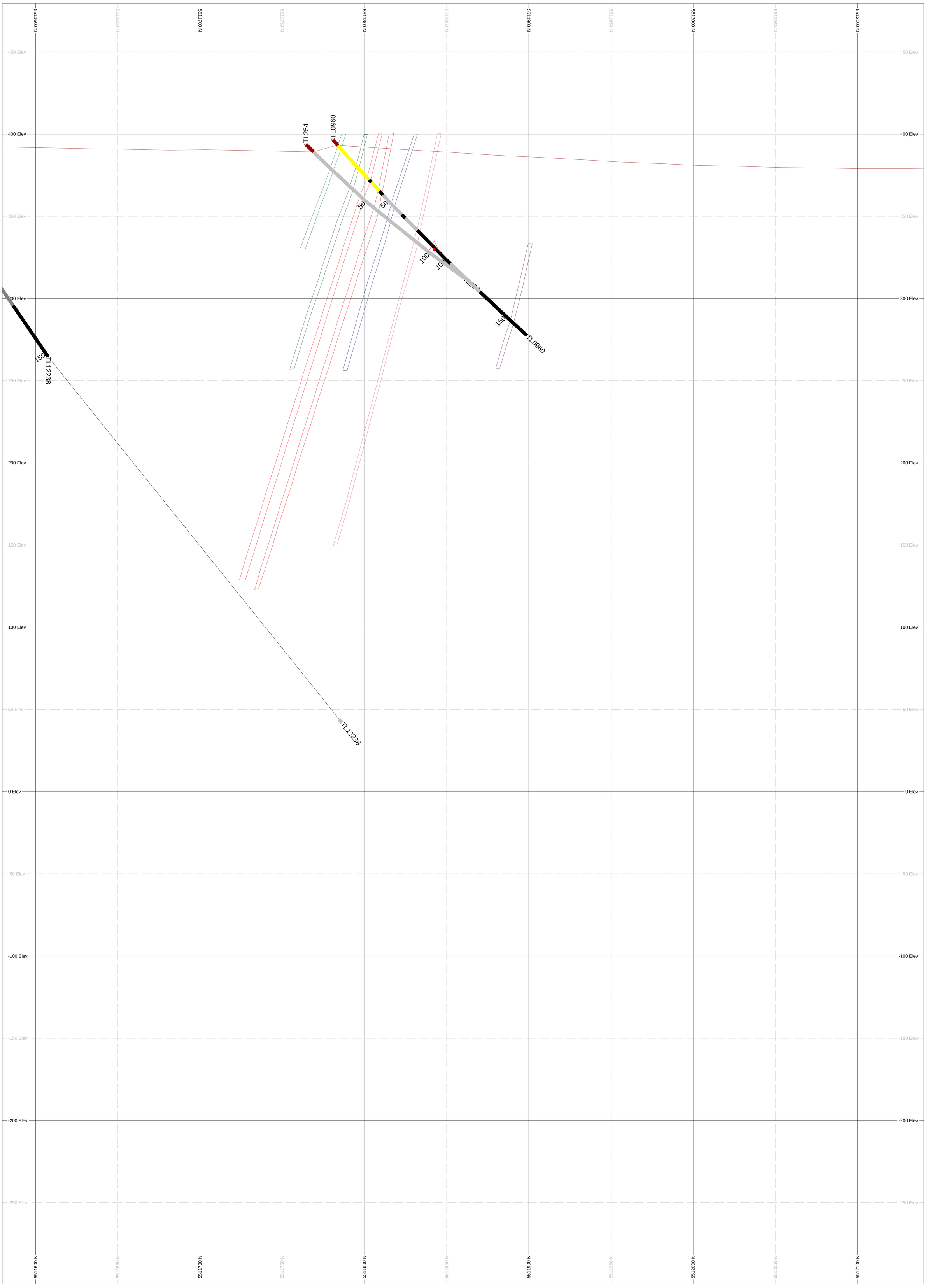
- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
- BS (Biotite Schist)
- D (Dyke)
- MD (Mafic Dyke)
- MSED (Metasediments)
- MSS (Muscovite Sericite Schist)
- MTVOL (Metavolcanics)
- OB (Overburden)
- QFP (Quartz Feldspar Porphyry)
- QP (Quartz Porphyry)
- FZ (Fault Zone)

TREASURY METALS Inc.

Goliath Gold Project	
526800	1:1000
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

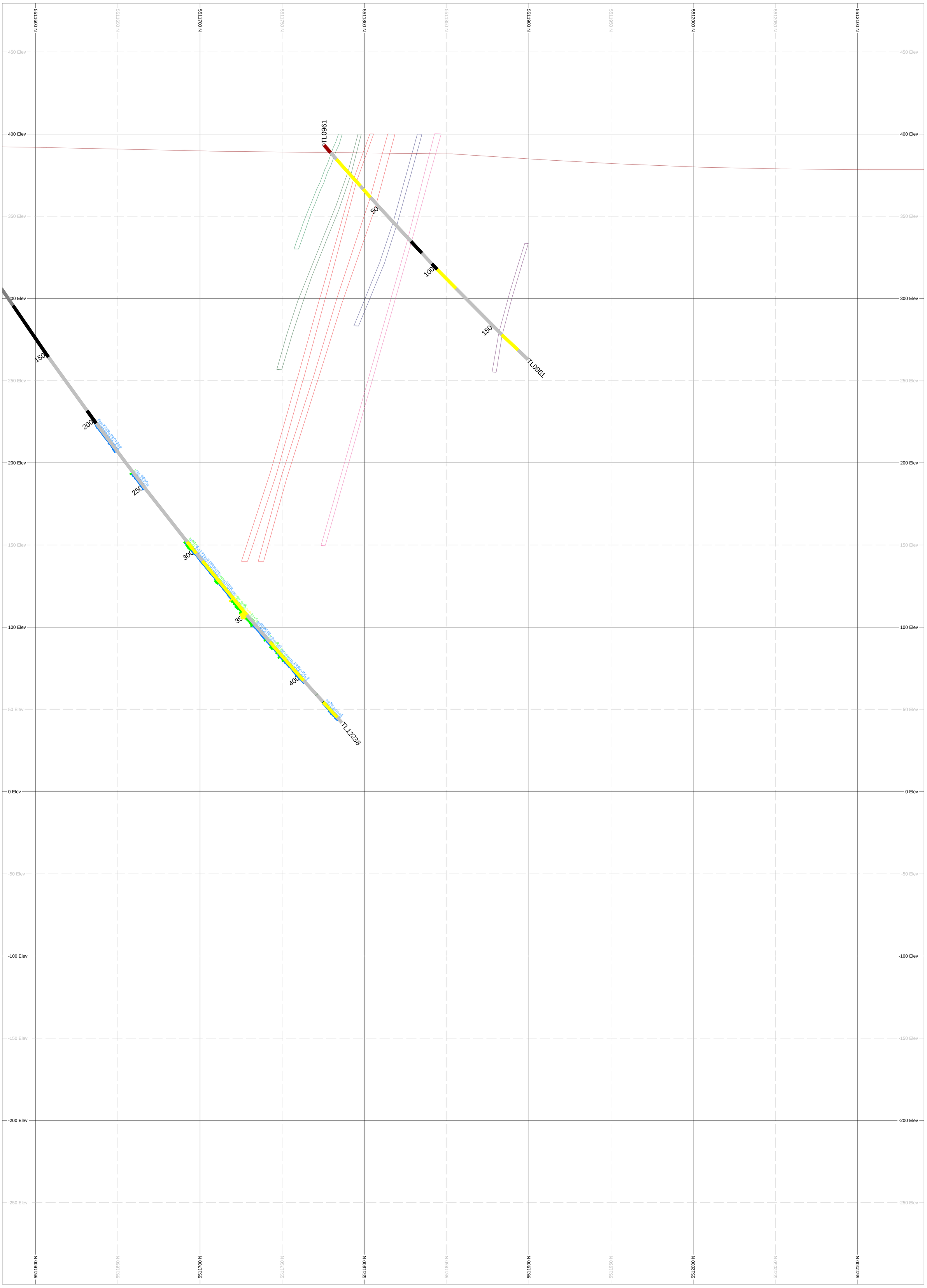
- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
- D Zone
- E Zone

Rock Types

- BMS (Biotite Muscovite Schist)
- BS (Biotite Schist)
- D (Dyke)
- MD (Mafic Dyke)
- MSED (Metasediments)
- MSS (Muscovite Sericite Schist)
- MTVOL (Metavolcanics)
- OB (Overburden)
- QFP (Quartz Feldspar Porphyry)
- QP (Quartz Porphyry)
- FZ (Fault Zone)

TREASURY METALS Inc.

Goliath Gold Project	
526775	1:1000
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

- 2018 Pit Outline
- Overburden
- H4 Zone
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- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
- B2 Zone
- C Zone
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- E Zone

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- MSS (Muscovite Sericite Schist)
- MTVOL (Metavolcanics)
- OB (Overburden)
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- QP (Quartz Porphyry)
- FZ (Fault Zone)

TREASURY METALS Inc.

Goliath Gold Project	
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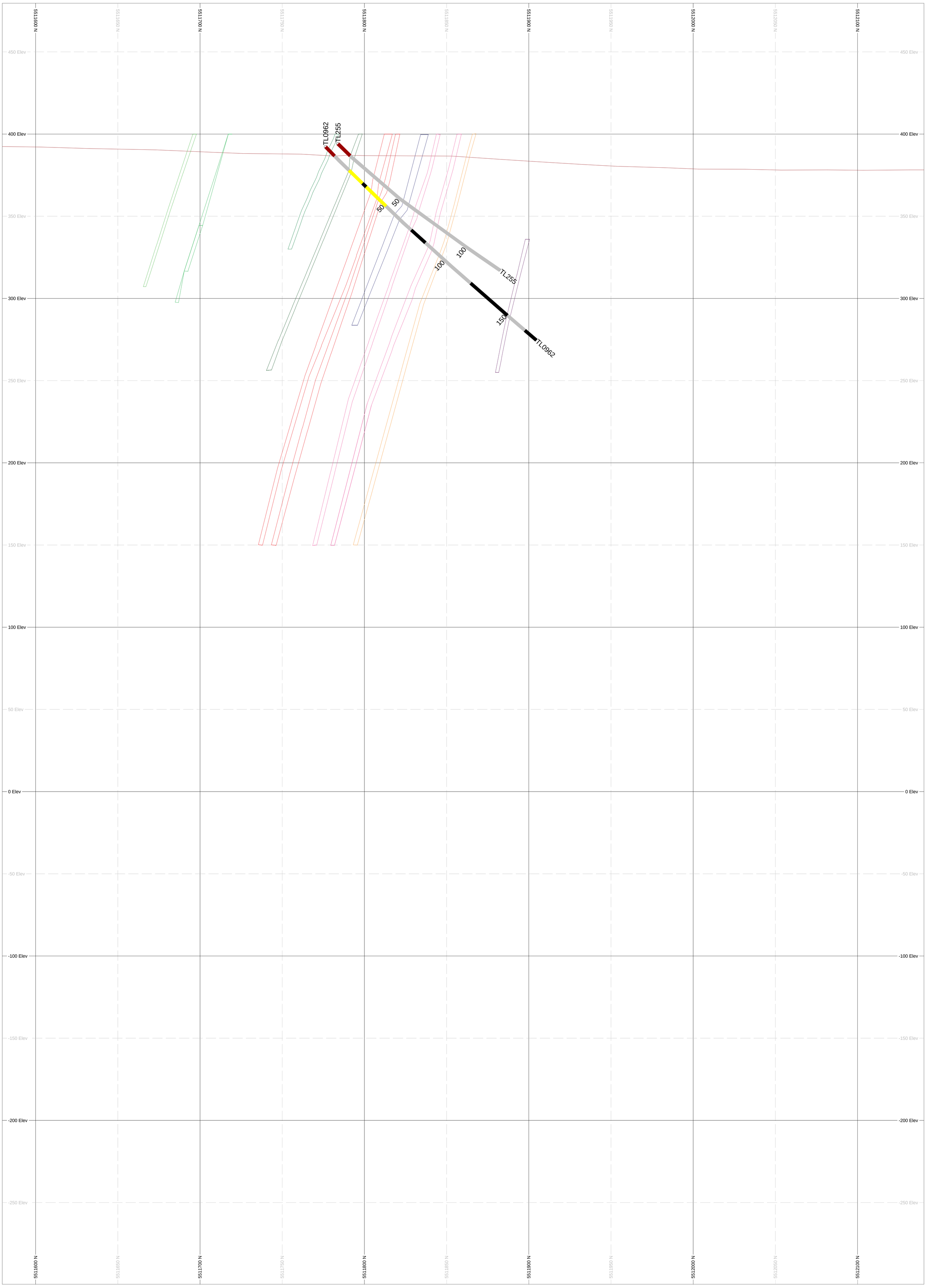
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
- KCB ABA

Zone Wireframes

- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
- H2 Zone
- H1 Zone
- Main Zone
- B1 Zone
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- C Zone
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Rock Types

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- MSS (Muscovite Sericite Schist)
- MTVOL (Metavolcanics)
- OB (Overburden)
- QFP (Quartz Feldspar Porphyry)
- QP (Quartz Porphyry)
- FZ (Fault Zone)

TREASURY METALS Inc.

Goliath Gold Project	
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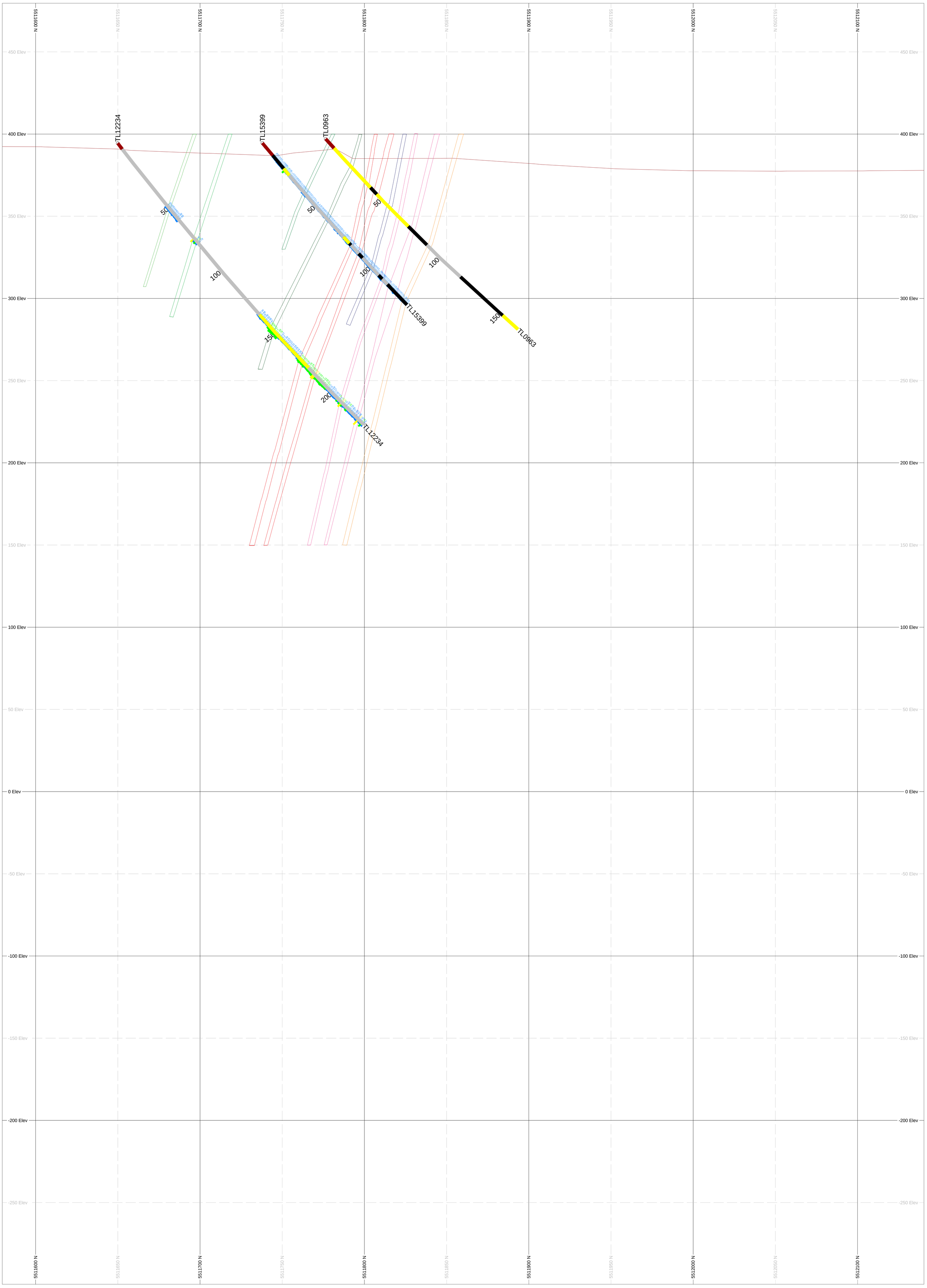
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
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Geochemical Sample Locations

- EcoMetrix ABA
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Zone Wireframes

- 2018 Pit Outline
- Overburden
- H4 Zone
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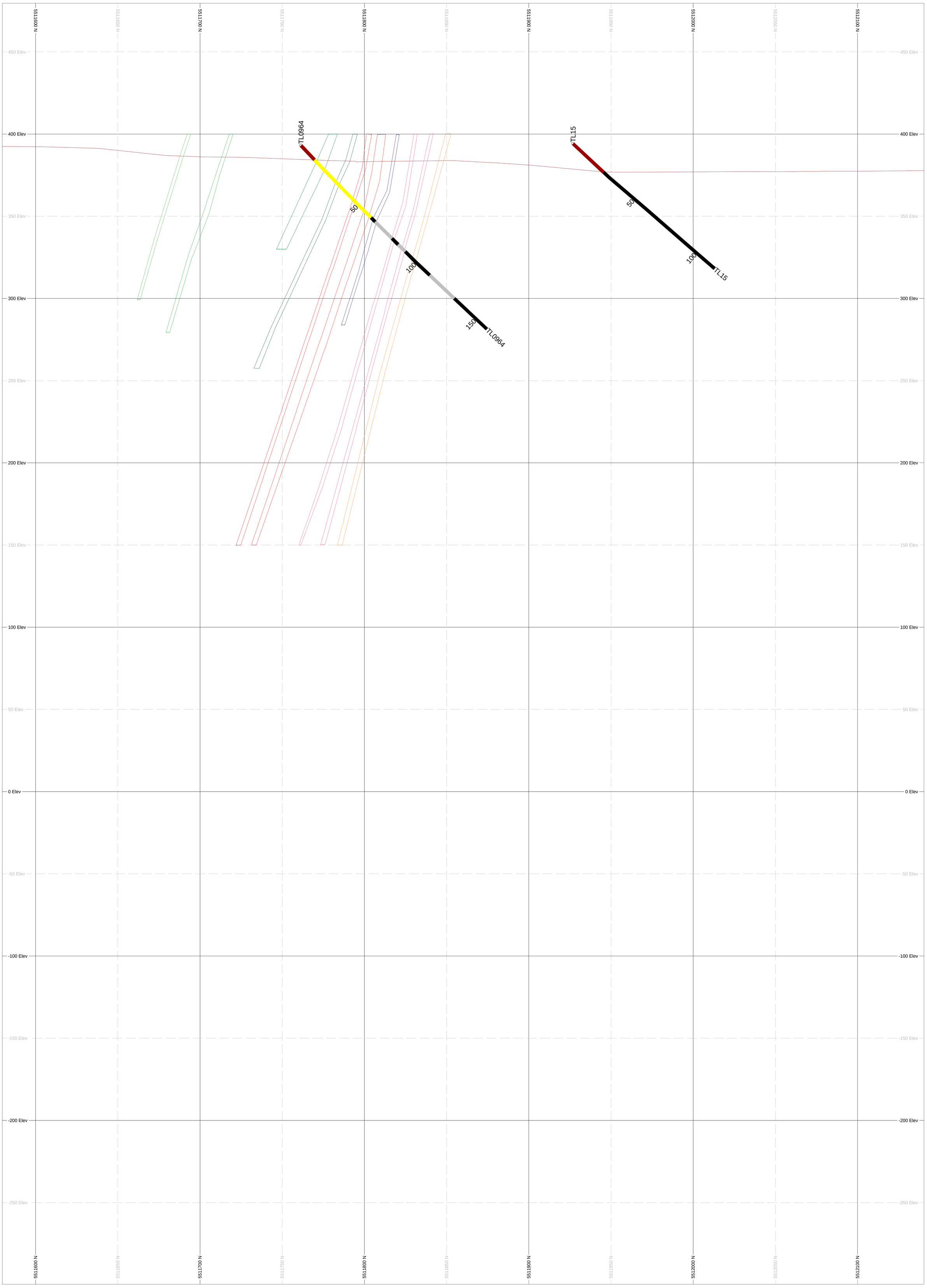
- QFP (Quartz Feldspar Porphyry)
- QP (Quartz Porphyry)
- FZ (Fault Zone)

TREASURY METALS Inc.

Goliath Gold Project	
526700	1:1000
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
- 2.0 - 5.0
- 5.0 - 10.0
- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
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Zone Wireframes

- 2018 Pit Outline
- Overburden
- H4 Zone
- H3 Zone
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- B1 Zone
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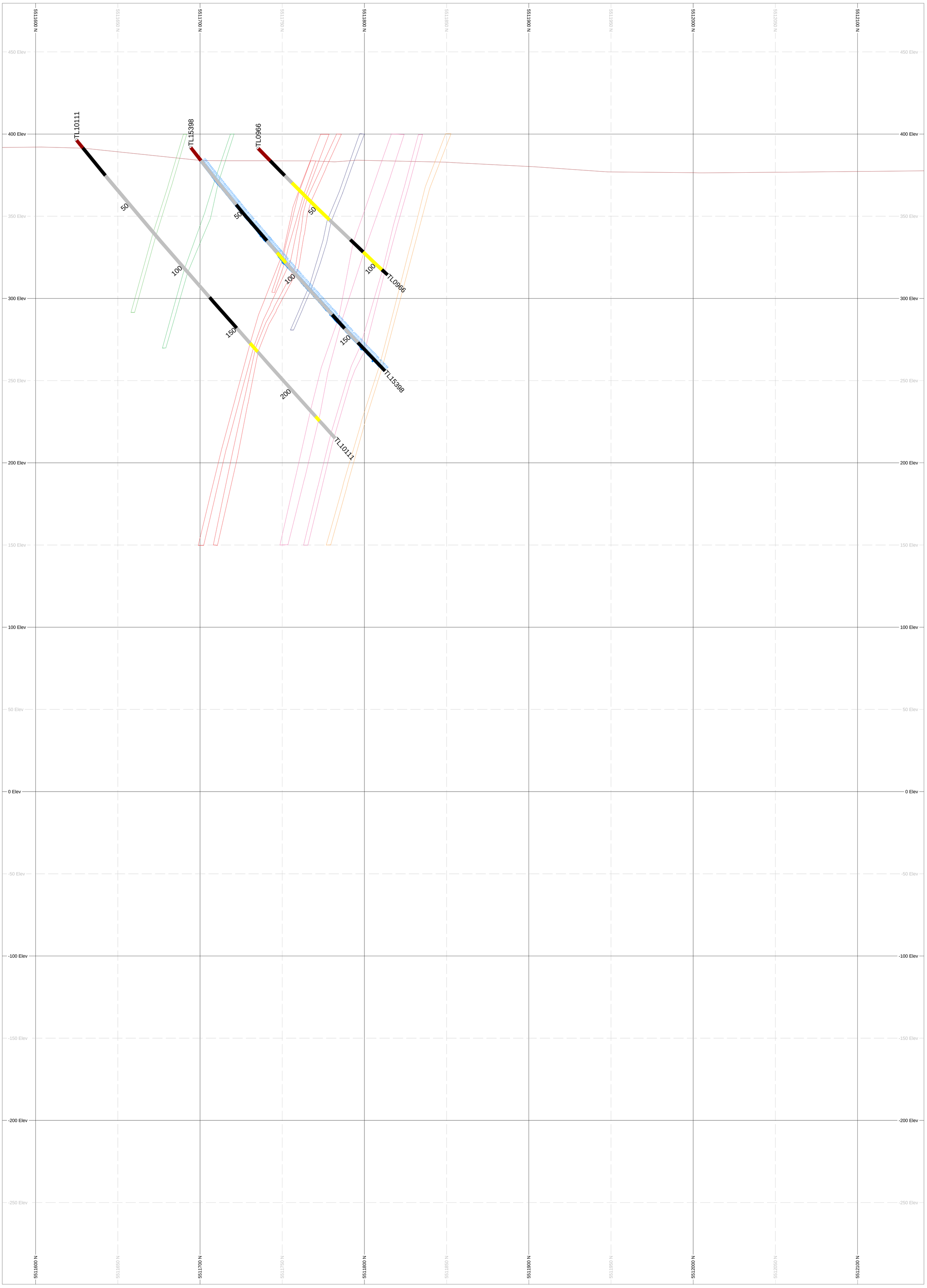
- QP (Quartz Porphyry)
- FZ (Fault Zone)

TREASURY METALS Inc.

Goliath Gold Project	
526675	1:1000
Date: January 18, 2019	Office: Dryden, ON



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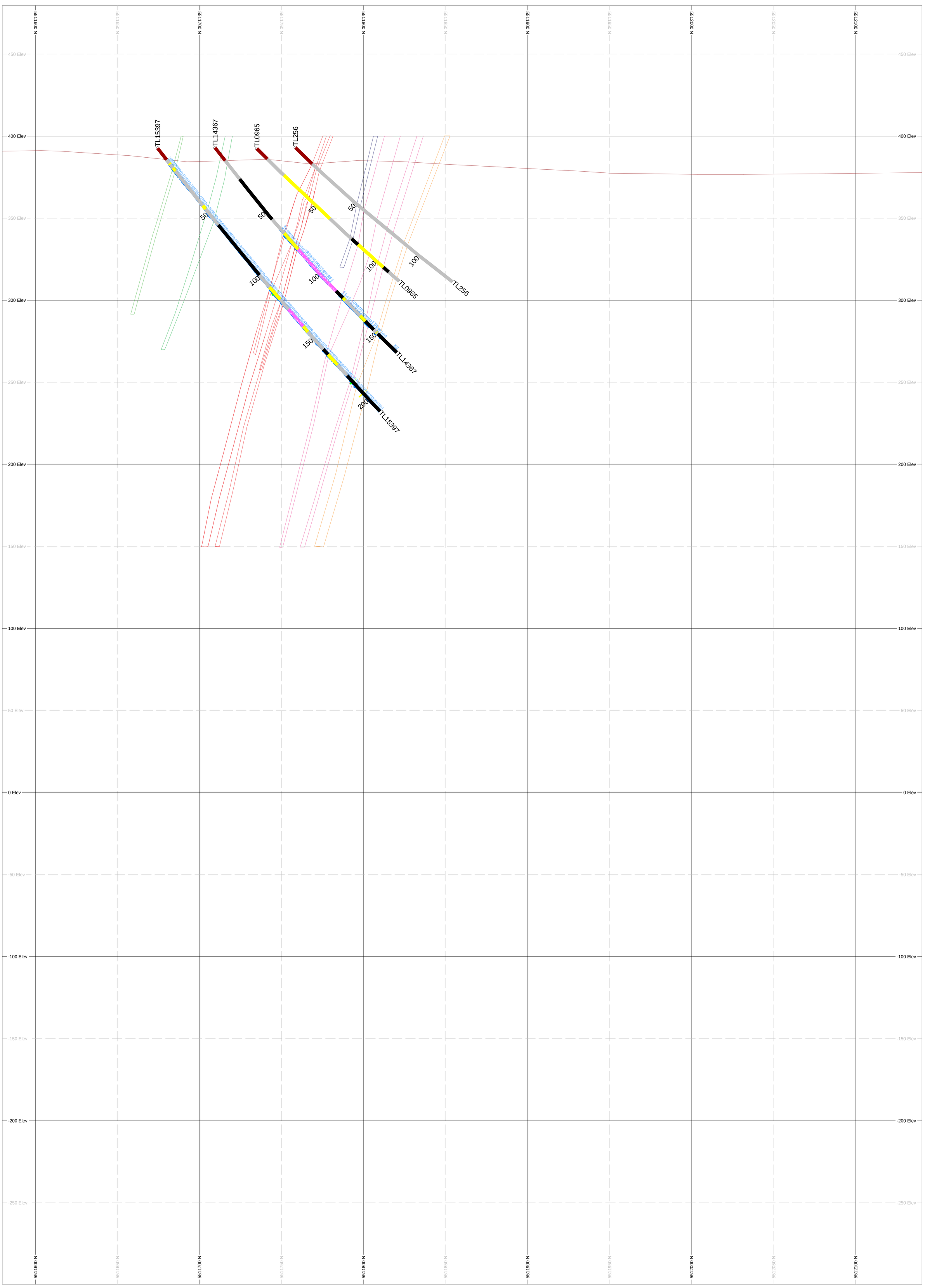
- FZ (Fault Zone)

TREASURY METALS Inc.

Goliath Gold Project	
526650	1:1000
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

- < 1.0
- 1.0 - 2.0
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- > 10.0

Geochemical Sample Locations

- EcoMetrix ABA
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Zone Wireframes

- 2018 Pit Outline
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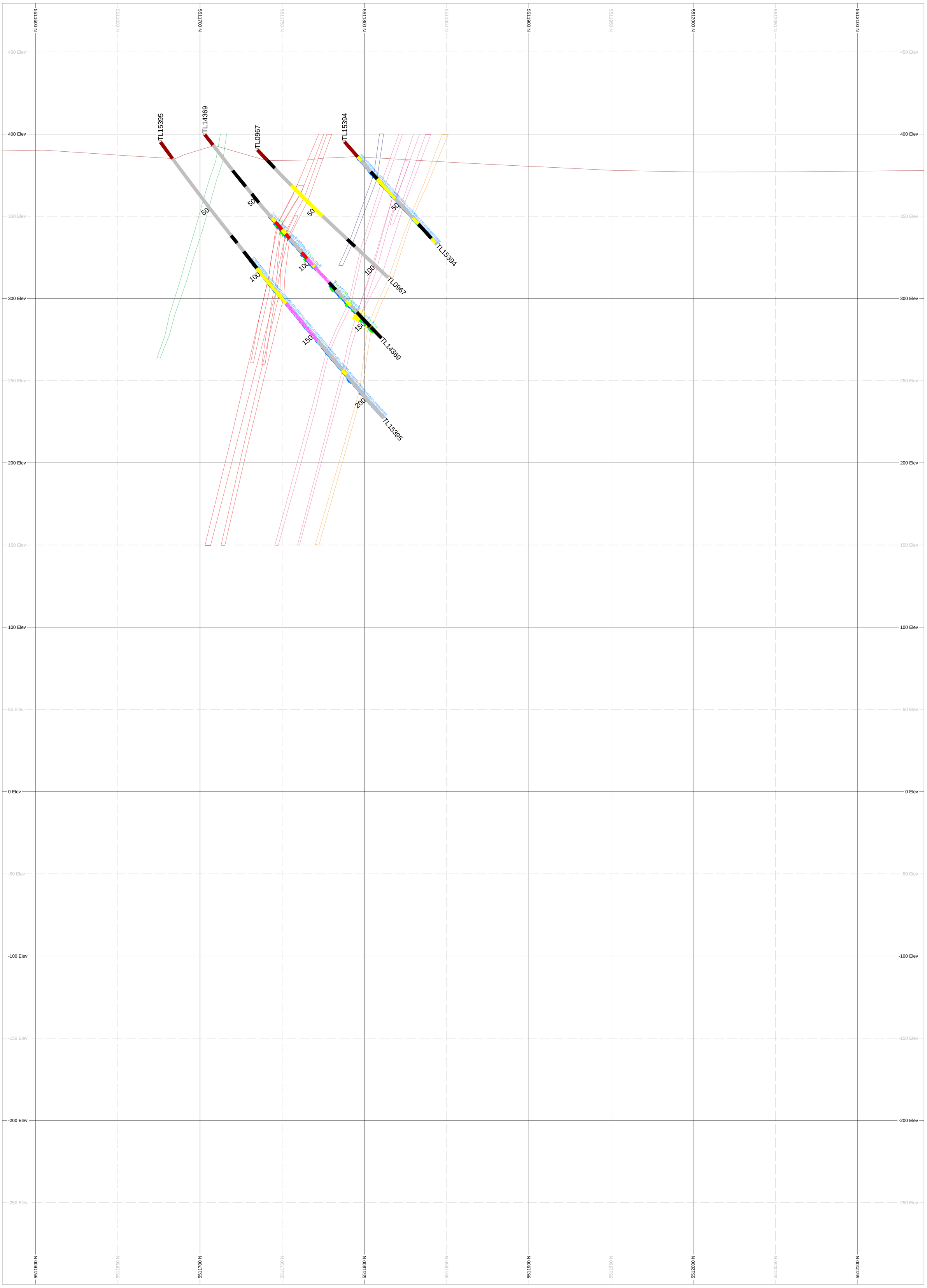
TREASURY METALS Inc.

Goliath Gold Project	
526625	1:1000
Date: January 18, 2019	Office: Dryden, ON



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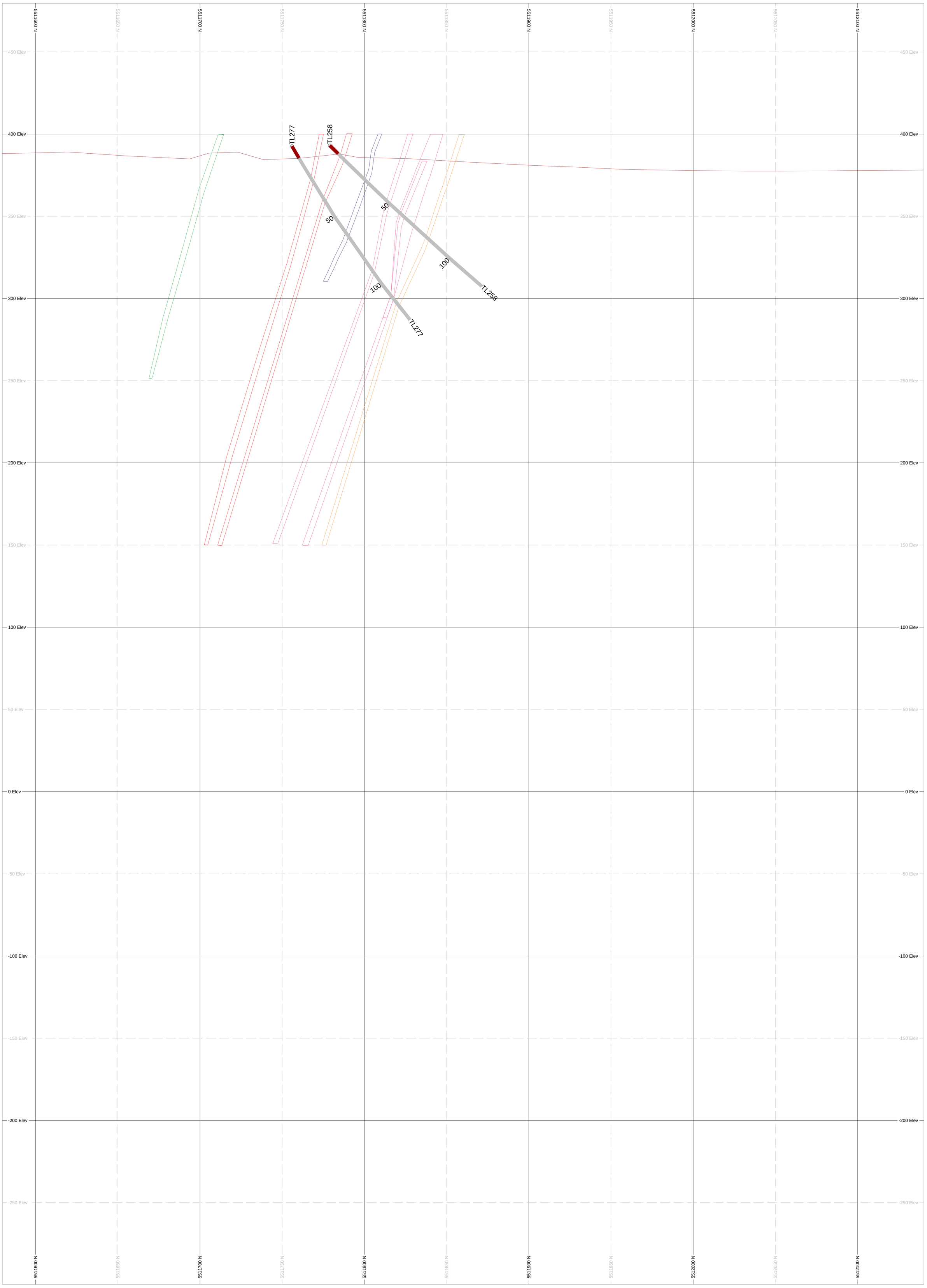
- FZ (Fault Zone)

TREASURY METALS Inc.

Goliath Gold Project	
526600	1:1000
Date: January 18, 2019	Office: Dryden, ON



Sulphur Percentage (%)

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Geochemical Sample Locations

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Zone Wireframes

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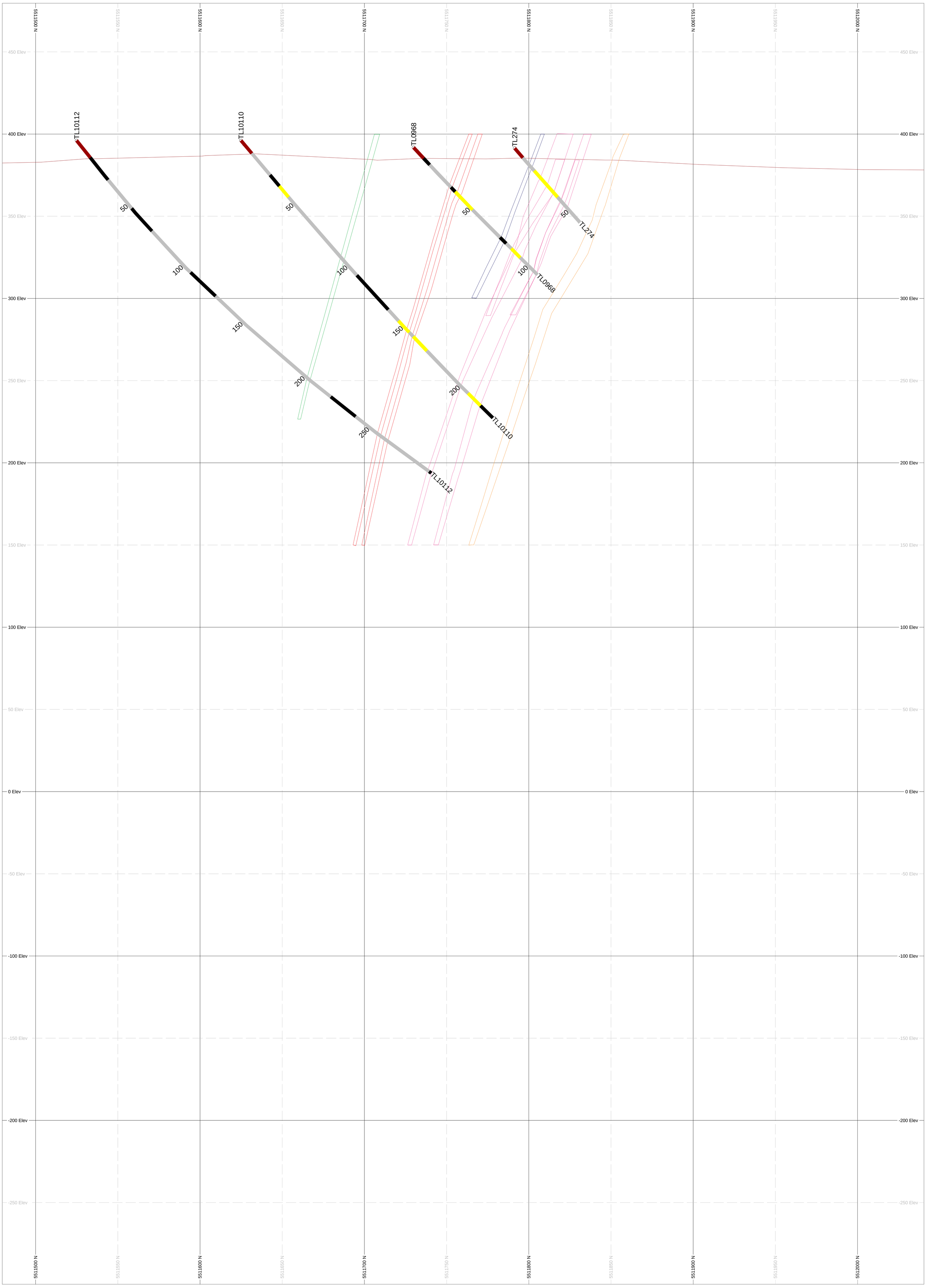
TREASURY METALS Inc.

Goliath Gold Project	
526575	1:1000
Date: January 18, 2019	Office: Dryden, ON



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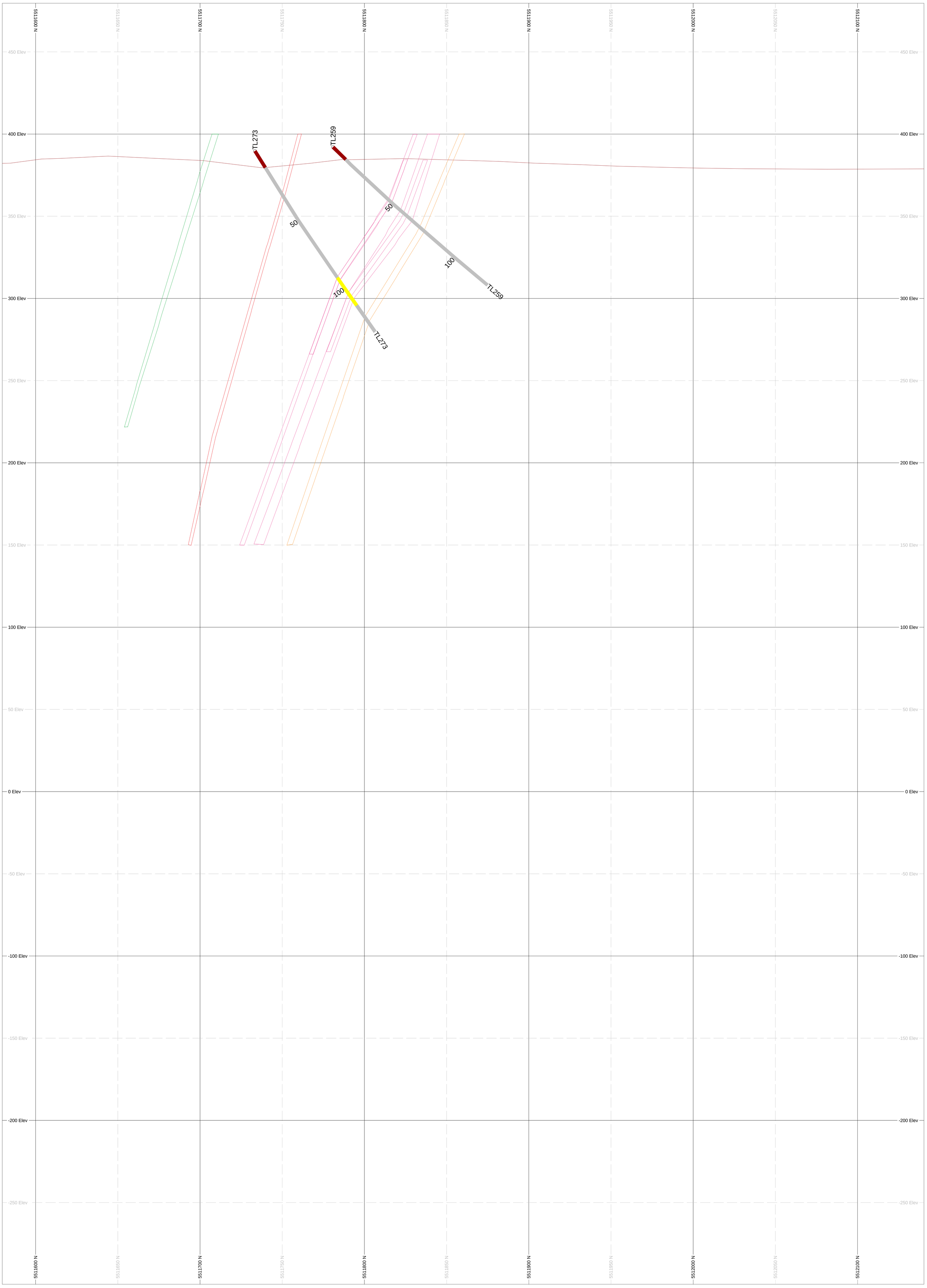
TREASURY METALS Inc.

Goliath Gold Project	
526550	1:1000
Date: January 18, 2019	Office: Dryden, ON



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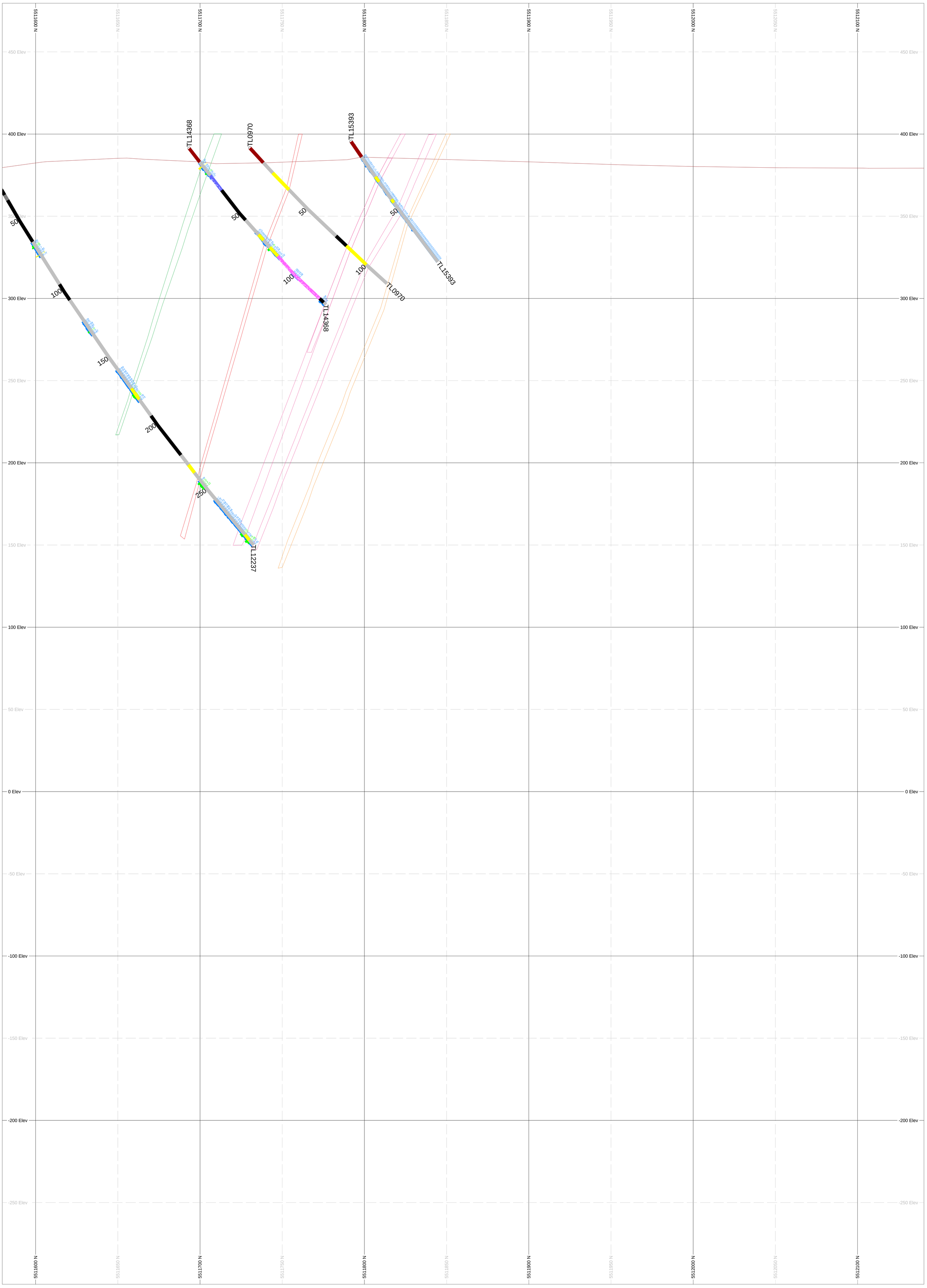
TREASURY METALS Inc.

Goliath Gold Project	
526525	1:1000
Date: January 18, 2019	Office: Dryden, ON



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TREASURY METALS Inc.

Goliath Gold Project	
526500	1:1000
Date: January 18, 2019	Office: Dryden, ON